

THE NATION AT SCHOOL

A SKETCH WITH COMMENTS

by

F. S. MARVIN

'Gentlemen of education were pretty much the same in all countries; the condition of the lower orders, the poor especially, was the true mark of national discrimination.'

DR. SAMUEL JOHNSON

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PREFACE

EDUCATION is so universally important, and we talk and think so much about it, at least for our children, that it is surprising that so few attempts have been made to describe simply, and estimate fairly, what is being done in England under that name. If you turn to such accounts as exist, either in books or encyclopaedia articles, they will be found to be mainly either pleadings on behalf of some special system and denunciations of what does not agree with it, or else detailed and technical accounts of some one set of schools, or what the Government has done or should do to promote education in a certain direction. The former type of writing may be mildly exciting, but conveys little light or knowledge; the latter is mostly caviare to the general, unreadable, for instance, as the article on 'Education' in the eleventh edition of the *Encyclopaedia Britannica*. As a rule it appeals only to the specialist who is taking up education as a profession.

Education like any other craft must have its mysteries; it is natural and right that it should. But since, in the last century, the State everywhere has organized a complete and elaborate system of schools and institutions fitting into one another and serving a multitude of ends, the teaching itself has been obscured by the network of administrative regulations and devices which now forms the larger part of the mystery. Few indeed now penetrate the whole, and the work itself for which the machine exists, the work performed upon the young minds themselves, is apt to retreat into a distant background. It is the main purpose of this little book to bring this essential thing into prominence, and to present it as concretely and intelligibly as possible. The genesis of State action is sketched, especially so far as Great Britain is concerned, and then an outline given of

what is now going on. But, inasmuch as it is impossible to describe the actual in a matter of such intense and universal interest without indicating some personal leanings, it will be found that the author's own convictions and ideals appear here and there, it is hoped without destroying the general truth of the picture. It may, however, make the argument clearer, and would certainly be honest, to admit at starting what these main prepossessions are. They are not many and may be put quite shortly.

The first, and most important, is that effective education must rely much more than current practice seems to imply on personal effort and conviction. To aid these, the parents are called upon to be more active in the earlier stages, and the community to encourage and assist, but only within narrow limits to dictate, later on.

Next to personal taste and effort, the thing most needed in all types of education at the present is greater intellectual coherence. The mass and variety of aims and subjects and details of all kinds are overwhelming. More unity, which the moral reformer is seeking through forms of service and international harmony, can be gained in the intellectual sphere only by the concept of evolutionary progress. History in this broad sense must play a larger part.

Looking at effects broadly and in their social aspect, the results of the efforts of a hundred years have been encouraging. This appears clearly enough throughout the volume. That the weaker side is intellectual interest and concentration is the author's most abiding impression after a lifelong association with the facts. To strengthen this and gain also a deeper enjoyment of the goodness and beauty of men and the world, would seem the best objects of the next advance.

As the improvement of technical training is now an

immediate concern of the Board of Education, I have added a short Appendix on that subject by my son Mr. A. N. Marvin who has been specially studying it, and wish at the same time to add a grateful acknowledgement of the service rendered me by Mr. H. B. Jenkins of the Board of Education and by Mr. F. Page of the Oxford University Press for their reading of the chapters in MSS.

F. S. MARVIN.

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THE PUBLIC VIEW AND THE PERSONAL

THE post-War years, which have brought so many anxieties on the world, have at least one thing entirely to their credit. There has never been a time when men of all nations were so much concerned with the education of their juniors, or spent so much money upon it. The pages which follow will attempt a sketch and an estimate of what is going on in England, but the interest and the expenditure are world-wide. Perhaps they are most marked in the newly arisen, or re-created, nations like Poland, Rumania, or Czechoslovakia, where, beside the ordinary motives, there is also a passionate desire to build up a strong body politic, able to preserve what has been so hardly won and to make a better future. Even in the most distressed areas, China for instance, the most distressed of all, one hears heartening stories of new educational institutions and enlightened work going on in a multitude of places. If we wish therefore to paint a fair picture of the post-War world and its prospects, it will not do to leave out education.

The position at home may become clearer as we proceed, but many opinions are current, mostly critical. It is true that the one big Government measure dealing with education since the War (Mr. Fisher's Act of 1918) has largely remained a dead letter, and there are those who say that succeeding Governments, and especially the present, are mostly concerned with limiting the facilities for education. On the other hand there is a class of critics, almost as vocal, who declare that we are not getting value for our money as it is, that the mass of the population are no better educated than, if as well as, fifty years ago at less than half the cost. What is one to think about it? Can any one give a fair—would that it might be a hopeful—

judgement? Meanwhile the fact remains that we are spending on this disputed business about a hundred and thirty millions a year, nearly half the national bill for drink.

Such answer as may be given in this book must come later as we survey the field, but it may not be amiss to preface the survey with a few preliminary remarks. Most of what we have to say will relate to schools and colleges, now in large and growing measure supported by public funds. This aspect of education now bulks so large that when we see in the newspaper a letter or a debate in Parliament headed 'Education', we know that it is something relating to a school or college and that some committee is to be held responsible for it. It was not so even a hundred years ago. Far later than that, almost as late as yesterday, there were no neat official reports, giving the number of primary and secondary schools in Bolivia or Peru, Japan or the Philippines, with the percentage of the population in attendance at each, with the provision for teaching them a second language, or training them as doctors or engineers.¹ But there was education, education before committees.

So true is this that any one concerned to know what education really means, apart from its official provision, is bound to turn back to thinkers much earlier than yesterday and find out what they thought about it when the world, or the State, was young. No one probably has said so many true and penetrating things on the subject as Plato; and the interesting thing to note is that while we moderns are always treating education collectively as a State concern, these earlier thinkers—and Plato most conspicuously—concentrated on the condition of the individual soul. How soul and body in the individual could be made as strong, beautiful, and harmonious as

¹ See *L'Organisation de l'Instruction Publique dans 53 pays*. Published by the International Bureau of Education at Geneva.

possible; this is the constant thought, incessantly repeated. It is the individual who is to do it, aided, if he is fortunate enough to find one, by a skilful and sympathetic friend. Even the strong and universal agency of the medieval Church did not depose the individual so much as we, with our State organization, seem inclined to do. It was the lonely monk, working often ignored and sometimes in fear of his official superiors, who did the chief educational work of the Middle Ages; and the *Summa* of St. Thomas, the *Opus Majus* of Roger Bacon, the ardent strivings of Abelard, survive to tell us of their labours. With the Renaissance the goal was altered, but the individual is still the mainspring of the advance. Sovereigns and wealthy men founded schools and colleges, but the force of what was thought and written on education was directed always to the culture of individuals. The names which stand out—Petrarch, Leonardo, Vitterino, Milton—are those of self-educators, and Goethe, whose centenary we were celebrating last year (1932), is on the illustrious roll. It will be well then, before reviewing what the State and public bodies are now doing, to cast a glance on this other side of education, and ask what the individual is doing and might do for himself. And we may remind ourselves, when speaking later on of the poor, that a strong initial motive in first providing schools for them, before the State recognized it as a public duty, was to enable the individual to read the Bible and on those lines to work out the salvation of his soul.

About a hundred years ago the State began to take up the work of those early pioneers who had been working on a religious basis. It first supported with modest grants the two societies, the National and the British and Foreign, which had been conducting primary schools and later on were to conduct training colleges for teachers, the former in connexion with the national church, the latter on an

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undenominational or Biblical basis. From that beginning the whole national state system has evolved, and we propose in the following pages to take a few glimpses at it in educational order. We shall see how the youngest and poorest children claimed from the State the most carefully regulated assistance and that the specially weak in mind or body received, relatively to the mass, the more thoughtful and liberal treatment. As the century passed, State action moved in wider circles, and towards its end we shall trace the gradual merging of the universal primary into a new order of secondary schools, now also supported by the State. This new order will be seen to interlock in many ways with the older system of schools provided and maintained by private resources and endowments. The universities and technical colleges, standing at the summit, receive and react to the wave from below. The scope of their work and the general tendency of its development will then begin to appear. That on the whole the intellectual level of the nation has been markedly raised, will hardly need demonstration, and if the weaknesses sometimes strike us more forcibly than the strength, it is because the wide background, brighter in the growing light, throws into stronger relief the darker patches.

All this has been done and must be judged from the public standpoint. It is a great work, found necessary by all modern states, and its beneficent results may be measured by statistics of health, enormously improved, statistics of crime, also showing a marked though less universal improvement, and by the general rise in intelligence, common sense, and goodwill. But just as it can be judged only by general tests, so it must be framed on general considerations, the average needs of various classes, the availability of funds, the comparative desirability of many desirable ends. Above all in this aspect, what the nation needs most must be supreme. The standards by

which this public action in education may be directed, and its implications, will be touched on in a later chapter. But it is essential at starting to distinguish clearly between what public bodies may do, and the point of view which they must take, and the primary personal duty of self-education. The infinite possibilities of this are hinted at, cursorily enough, in the following chapter. No apology is needed for placing it thus early. It stands there, not only because it is first in importance, but because, with the spread of public agencies and the growing readiness to regard education as a thing to be purveyed to the individual by other people, the supreme truth is constantly obscured and often denied.

For the older and more essential view one might quote authorities from all ages, but none better than one of the oldest of all, Plato himself, who discusses in many dialogues between Socrates and his friends what a man may do to train and educate himself. With no Socrates available we must examine ourselves.

II

A SELF-EXAMINATION

THE adult individual, willing to examine himself, will need a modicum of knowledge about two things—first, himself, and second, education. He must know in a general way what his own physical and mental powers are, and he must have some conception of how they may be improved by training, which is education. The first at least is well within his ken. If he is adult, and not mentally deficient, he has had frequent opportunities of measuring his powers against those of others. He knows more or less where he stands, at any rate in the society in which he has grown up. As soon as he has acquired this consciousness, is the time to begin this self-examination. It is not to be a self-exposure—now somewhat fashionable—of sins mortal or venial which may require a salving hand, but a comparatively neglected topic, How far am I an educated person? What is an educated person? So far as I am one, to what do I owe it? What more might be done to extend the process?

Of course the answers to be of any value must be honest, and the examination as complete as we can make it. The second condition is as difficult as the first, for the current ideas of education in which we have all been brought up are curiously constricted. In ordinary parlance a man would pass as educated who knows a certain number of things, learnt from books, and can talk sensibly and in approved accents about the persons and events of the day. To the honest self-examiner—even the most simple-minded—this will appear not so much inadequate, as ludicrous, almost as irrelevant. The examination must begin with the most fundamental powers and go upwards to the highest training of the mind. The body, therefore,

comes first and the examiner would ask, How far in his lifetime, and while the body was still plastic, had he developed his physical powers and kept them in a state of healthy activity? The average physical condition of people over middle age, the crowded state of hospitals, sanatoria, and nursing homes, the actual deaths from preventible disease, do not suggest very encouraging answers to the first item in the examination. Yet questions under this heading are not only fundamental but strictly relevant to self-education. The actions necessary to produce an improvement are almost all within the competence of the individual himself. School doctors may inspect us and general practitioners advise and attend us in later days, but for the most part our health is what our way of life and our personal habits have made it. On such individual actions and habits is based the general health of the community, with all that it involves in money, time, happiness, and beauty.

But the self-examiner will not have finished with his body when he has surveyed it from the point of view of the general practitioner. It is also the basis of his aesthetic education, the instrument of all his manual and physical dexterity. On the aesthetic side he would have much to ask, if he is to aim at making his examination complete. Schools and colleges will not have worked much upon him in this respect, except for a few fragments of fine literature and a nodding acquaintance with one or two great pictures and perhaps the Elgin room at the British Museum and half a dozen noble buildings. If it were otherwise how can we explain the fact that the majority of our contemporaries are content to live in the hideous purlieus of modern towns and feast their eyes on the shrieking monstrosities of modern newspapers and cinemas? That this should go on and grow in force, while eye and ear are open to all the beauty and delight of nature in sky and sea,

with the songs of birds and the shapes and colours of trees and flowers waiting to be enjoyed, is the strongest indictment of modern education. How have I trained my powers of appreciation and what do I now most enjoy? would be the most disquieting questions of the self-examiner. On the side of physical and manual dexterity, it may be that he will be able to award himself somewhat higher marks. Games, camping out, and all that the badges of boy scouts and girl guides stand for, will count for much, and manual work and hobbies of every kind have played a large part in schools in recent years. There has been a move away from the deepest trough of the factory system, and acres of allotment gardens round every town are a joyful omen for the future. This and his car, his wireless set, and his tap-washers may give the conscience of our self-examiner some relief.

But already in his self-examination our modern Socrates has passed beyond the bounds of purely physical and manual dexterity. The mind as a whole is involved in almost every exercise that we have mentioned, and when we reach such things as a wireless set or a garden fully cultivated, the wide world comes into play. He is led then to think of all his mental powers and how they have been trained and modified by the growing world. How have these been strengthened since earliest childhood? Of all the more purely mental or biological functions he would put memory first, for on memory man has built up his social existence and out of memory he re-makes the future. On this a modern self-examination would give curious and rather doubtful results. On the personal side—with which the self-examiner is primarily concerned—there can be no doubt that the memory is less vivid and less trained—because less relied upon—than it was with our ancestors or the reciters of Homer's lays. On the collective side, it is far better organized and the stores of the past are now

better preserved—somewhere. The personal memory is less used, because the written and printed word is always at hand to replace it, with the result that few of us will be able in declining years to console ourselves with the recital of fine poetry learnt as children. The self-examiner to-day would find small response to questions such as this, and still less to those on the more mechanical memorizing of formulae, lists of kings and queens, or the rhyming rules of Latin grammar. Dr. Johnson somewhere gives a useful hint to those who may wish to make their own memories more lively. ‘Little people’, he said, ‘should be encouraged always to tell whatever they hear particularly striking, to some brother, sister or servant, immediately before the impression is erased by the intervention of newer occurrences.’ His hint also implies the reason. The lays of the minstrel, the tales of a grandfather, lived on and were remembered, because they were social facts; they had been told, and shared with others. The world-wide diffusion of modern news has lost this vitality, partly because it is so diffuse, still more because it is embodied in a passing material object and not in the living tissue and spirit of men. Impressions that we share with other thinking and loving beings in person have a vitality in memory surpassing any other.

The self-examiner, however, is not called upon to compare himself with his ancestors, and he will be hard put to it to draw any certain conclusions if he sets out on the task. He is testing himself as to the training which his known faculties have received, since he was old enough to think about them. Memory clearly is one of these and he will be rewarded with some interesting information if he examines its development or its decline. His powers of observation are perhaps the next in importance, if indeed they are to be put second to any. Here again—if his mind turned that way—he might well be doubtful whether in

powers of observation he was superior to much earlier human predecessors on this planet. In some of his senses he certainly is not.

The most conscientious self-examiner will not blame himself if his sense of smell is less acute than that of a savage, nor can he hope to regain that marvellous power of re-tracing one's way through miles of trackless forest which is still possessed by some of the more gifted lower animals. But our eye at least has grown with our upward evolution, and on his powers of observation the self-examiner may well exercise some close scrutiny of himself. Of these the modern world, with its fine scientific instruments, its aeroplanes, and its motor-cars, is more in need than ever. Nor do they show any sign of failing. Ask any man of science—or any Sherlock Holmes—to what he attributes the bulk of his results, and he will undoubtedly reply, to using his own wits and keeping his own eyes open.

For work such as this, life is the best examiner and success the only certificate. We have no need to stress it here, for nowhere in the world is this practical test more sure of acceptance than in English circles. But the self-examiner must go much farther, if he is not to allow the ideal of practical success, of mother-wits well used, to monopolize the whole field of intellectual growth and spiritual riches.

What, he will ask, have I done, deliberately and persistently, to increase my knowledge, to deepen my understanding of things, to make in my own case the microcosm more comparable with the macrocosm to which it belongs?

A futile and impudent ambition, it will be said, fit only to breed highbrows and prigs. Let each man do his bit of the world's work and in his leisure hours amuse and recreate himself as he finds suits him best. The objection will find a warm response in many hearts, and yet it would leave our honest self-examiner dissatisfied. He is only an average man, but he is a questioner; and if he questions

himself, he will be inclined also to question others. Is there no general object in all this educating, towards which by his individual efforts each striver and questioner is contributing something? It must be surely to make mankind, the individual as well as the race, more adequate to his destiny of 'facing the Universe'. This is no fad of the highbrow, it is imposed upon us by the laws of our being, and we either strive to fulfil them or die out as other animal species have before us. The struggle is now more difficult than before, but we have at last become conscious of the goal and know its brightness as we approach. The Chaldean shepherd watching the stars by night, the Hindu Brahmin, after the Greeks had invaded his country with Alexander, could more easily regard himself as 'educated' than modern man. The microcosm then was more comparable to the macrocosm; but, though in later days the latter has so immeasurably enlarged, the same ideal must remain if man is to be true to himself.

We must assume then that our self-examiner accepts all this, not as a burden but as a glorious fate, and is asking himself how far he has advanced in his own case. He has given a glance to the possibilities of his physical and aesthetic training, and comes to the realm of knowledge proper, wherein his pastors, masters, and external examiners were initiating him in the days of his youth. How much of this has he followed up?

Later chapters will consider this beginning, as it goes on in the school and the examination room; but it was clearly meant to be an introduction—and nothing more—to the main topics in which the community has decided that its members should be interested. No one, except the unfortunates who are hypnotized by examinations, could imagine that it was more than this, and it is the worst evil attributable to the examination system that it often does engender a false sense of finality in the work of schools and

colleges. If we think for a moment of what either literature or science or history or art really imply, it is obvious that the best test of any school system would be the crop of learners which it produced. We are assuming that our self-examiner, if he has not been trained as such, has at least his conscience awakened, and is asking what progress he has made since his beginning at school and how further progress would be possible.

The more cheerful aspect of the matter is that any branch of knowledge, indeed any vital part of any branch, will, if duly cultivated, take root, spread out and grow. It is the growing quality which is essential. The self-examiner will turn to this if he desires to know the real state of affairs. He may well be pleased to take down his Virgil again, or find that he can remember some of the poetry he once learnt. But he must record on his balance-sheet that this is merely a form of great, perhaps of increasing, emotional enjoyment, like revisiting beloved landscapes or listening to old songs. The thing he will be looking for in this part of his inquiry is fresh ground covered, fresh links discovered between the old love and knowledge and something then unknown. Treated thus, the great figures in literature of which he had a glimpse at school, may in the end lead him through the whole range of human thought and time.

But for the majority the lines of growth will lie elsewhere. The average ex-State scholar will have made some acquaintance with modern languages as well as history and science. But there are very few who, on a candid retrospect, could claim that they had made a substantial advance in any of them. With language or history, it is comparatively easy, given the modern facilities of libraries. In field-studies opportunities and societies are not far to seek, and here and there the adventurous individual takes advantage of them. It was a rural postman who first

pointed out to the new Astronomer Royal the Nova Pictoris on which Dr. Spencer Jones read a paper at the British Association last year. The man had interested himself in the starry heavens on his early morning rounds at the Cape and spotted the stranger with his naked eye. So in the field of archaeology the stores are inexhaustible and easily accessible, and any day one may see a small band of excavators at work in Kent's Cavern at Torquay linking up by some flint-flake or bear's tooth the rise of man with geologic time. But how few are such workers! On all such points our self-examiner may well ask himself, 'What have I done, and if nothing, why?'

He comes from five million children whom the State now sends to school. The world of knowledge and of rational enjoyment is open to them all, and with the growth of leisure the opportunity for its use will be enlarged. Can the most hopeful critic maintain that up to the present, though much is being done, the proportion of the five million who make good is satisfactory? We are to see something of the schools in the pages which follow. But, however we may judge them, the first and last word must rest with the individual. Hence the need of such a self-examination as we have sketched. When a few millions of self-examiners begin to report progress, the nation may hold up its head.

THE STATE AS PARENT

THE previous chapter was an attempt to fix responsibility for education in its chief seat, the individual will; but the task is a hard one. It is true and obvious that for three-quarters of our lives we are educating ourselves, yet the schools are always staring us in the face. They are the symbol of education, and whatever the still small voice may whisper within, the impulse is always growing to look outside, and especially to those who conduct the schools, to bear the burden and dictate the path. This impulse has been conspicuously on the increase in recent years, when in all civilized countries the State has been shouldering more and more of the responsibility. It is a world-movement, made irresistible, as we shall see, by the Industrial Revolution, but it had its roots in earlier conditions about which a word must be said before we turn to England in particular.

For many a long day in the Middle Ages the Church was the chief educational agent, but private founders of schools and colleges played a large part and parents and individuals generally were more active in the matter than they have become in the highly organized system of the present. The intervention of the State arose from political motives and has brought with it great and manifold good; but the damping down of parental and individual initiative must be reckoned a serious item on the debit side. How did the State come to assume so dominating a place in the educational sphere, which was quite unknown in the ancient world? It came about through the intermediate supremacy of the medieval church which gathered up into its own hands for about a thousand years all the threads directing the spiritual life of its members. That being so,

it was inevitable that education should be in ecclesiastical control. Schools were attached to cathedrals and monasteries and, even where the foundation was secular, the teachers were religious or clerical persons. Then came the break in the sixteenth century, and the rivalry which had been growing for centuries between spiritual and temporal, king and Pope, took on a wider and, as soon appeared, a decisive shape. For though Protestant countries had in theory the chief interest in setting up schools of their own, the emancipation of the intellect from ecclesiastical direction spread generally, and, as the Church stepped out, the State stepped in. Religion and politics were thus at work before the industrial and social upheaval of modern times, and the modern authority of the State is founded on the successful struggles of the sixteenth and seventeenth centuries.

In the eighteenth century came a new movement for democratic enlightenment and control, which found its clearest expression in Condorcet and the men of the Convention. Adam Smith well represents it in Great Britain. 'The State', he tells us in one of the enlightening asides in the *Wealth of Nations*, 'derives no inconsiderable advantage from their instruction. . . . An instructed and intelligent people are always more decent and orderly than a stupid one. . . . They feel themselves, each individually, more respectable and more likely to obtain the respect of their superiors. . . . In free countries where the safety of government depends very much upon the favorable judgment which the people may form of its conduct, it must surely be of the highest importance that they should not be disposed to judge rashly or capriciously concerning it.'

This was written in 1776 and action would no doubt have been taken earlier on these lines in England, had it not been for the outbreak of the Revolution in France and the abhorrence felt here for everything done by the

Convention. Adam Smith expressed the general political motives for State action in Education, but, when it came in England, it had a specially religious and social turn which it has never entirely lost. Bills began to be introduced into Parliament early in the nineteenth century and Brougham was their strongest advocate. The first thing actually done by law in the matter of popular education was the imposition of an obligation on factory employers to provide some instruction for the children whom they employed. This was in 1802. It showed the connexion of the movement, so far as England was concerned, with the Industrial Revolution and showed also the specially humanitarian spirit which marked the opening of the educational campaign. Employers were making profit from the labour of the young, whose conditions were bad and often atrocious. It was for the employers to repay them slightly in improving those conditions and for the State to see that they did. There was a modicum of justice, a touch of humanity, and the beginning of State education. The first inspectors appointed were to see that these factory obligations were carried out.

It is interesting to compare the contemporary educational activities of Napoleon in France. There he concentrated on forming the minds of an élite by means of State academies, beginning at the top, while England, then and always, has preferred to begin at the bottom. Let those who can, look after themselves, but save the lowest grade from destruction or revolt.

Sunday Schools, Ragged Schools, Schools of Industry, all preceded the establishment of general elementary education, and when, after the first factory legislation, the State went on to give money for schools, it began by distributing it through the agency of the two religious societies which were conducting schools for the poorer classes. This first grant of public money was in 1833, and in the

same year a general education law was proposed. This, however, was to be left for Gladstone's ministry of 1868. In 1870 this ministry carried the most important Act affecting the relations of the State with education in England, for it was the first to impose an obligation on local authorities to see that sufficient schools were in existence to give a primary education to the whole population. These bodies were, by that Act, to be specially elected and called School Boards. They were to survey the field, with the aid of government inspectors, and take account of all the existing schools—Church of England, Roman Catholic, and the rest—and where these were not sufficient, to levy a rate to put up new ones. After a few years, as the necessary schools were built, another Act was passed making attendance at school compulsory. Where children were not in attendance at a recognized school, the onus was on the parents to prove to the magistrate that their children were being otherwise efficiently taught.

The greatness of these Acts may be measured roughly by statistics. In 1865, before they were passed, there were about a million children in average attendance at inspected schools. In some large towns only a third of the children ever entered school at all. In 1881, after ten years of school boards, nearly four million were in attendance. It was far the greatest achievement of that ministry, perhaps the weightiest deed in Gladstone's career.

Subsequent steps have been an enlargement and correction of this first sketch, until the Balfour Act of 1902 gave us the system as we now have it. In the interval between the two decisive Acts the elementary schools, as we shall see, went on spreading beyond their original limits, and a supplementary government department at South Kensington was established to administer grants in aid of teaching science and art, mainly drawing. In 1900 a Board of Education was formed to bring together the various

agencies which had arisen, and to this was also assigned the administration of charitable funds left under trust for educational purposes. As these affected a number of older schools giving more advanced instruction, a centre was thus created for all the State activities connected with education, and for the first time a Ministry of Education came into being in England comparable with those which had been in operation for years in other countries. Its lateness with us is an interesting symptom of other differences. Nor is it only late; its chief still receives less than half the salary paid to the more ancient and venerable Secretaries of State.

The Balfour Act, which was necessitated by the developments which had taken place since 1870, was passed by the other great party in the State, and though hotly opposed at the time, its quiet acceptance soon after and ever since is a striking demonstration of the practical unanimity of the nation in the matter dealt with. It carried out two chief changes. The first was that all schools, whether built by voluntary managers or out of the rates, were in future to be equally maintained out of public funds, if they admitted inspection and satisfied certain general conditions of efficiency. The voluntary managers were left with the upkeep of the fabric, and, with certain restrictions, the appointment of head teachers and the giving of religious instruction. The other chief change was that, instead of the old School Boards, new local authorities were to be set up, formed out of town and county councils, to administer funds, control the schools, and promote education of all kinds in their areas. Thus for the first time a public authority was created in England to realize Matthew Arnold's ideal of organizing our secondary education. A fresh set of inspectors was then appointed to deal with this new class of schools.

The whole story is typically English in its slow and

tentative progress, taking the needed step only when it was seen to be unavoidable, without any large and comprehensive scheme to work from at starting, but with the invaluable boon of carrying the whole nation with it in the end. In education this method of proceeding was more clearly dictated than in any other part of the national economy by the fact that owing to our wealth the provision of schools by private benefaction had been more abundant than in other countries. The nineteenth century, with its wealth earned in the heyday of manufactures and trade, had largely increased the supply. The upper and middle classes could well afford to educate themselves, and had every one in the country been able to do the same, the State would have been glad to leave it to them. The first impulse to State action came from the masses of the very poor in the new mining and manufacturing towns and the degradation of their children by working for a pittance at a tender age. This stirred the public conscience. Added to this, came later the idea that if the masses were to assume political power, 'we must educate our masters'. But this was clearly not the original, nor ever the strongest, motive in England, for the masses were not admitted to political power until the Act of 1867, and long before that public money had been spent on building or maintaining schools, and groups of benevolent people had been busy on the education of the poor from religious and humanitarian motives from the end of the eighteenth century onwards. The political motive first became prominent just before the School Board Act of 1870, when workmen had won their place on the voting rolls and we were approaching the democracy of the twentieth century. But even then it could hardly be said that the State system of schools was calculated to train a democracy capable of taking an intelligent interest in public affairs. For nothing was given to higher education, and the little scholars, leaving the

elementary schools at eleven or twelve, were so far the only product of State-aided education. Publicly-aided Adult Education was still to come; Institutes for the study and teaching of economics and international affairs were not in existence even for the better-to-do. The nation in fact was creeping at first unwillingly to school.

We have seen that before the Balfour Act of 1902 South Kensington had begun its operations, and evening classes, mostly of a simple technical kind and teaching scraps of science with shorthand and book-keeping, were encouraged by grants. There will be occasion to speak again of this later on, and it is only noted here to show how halting and tentative in England State effort and expenditure on higher education have been. The main interest has always been in the humanitarian side of education, and the bulk of the public money spent on the youngest and weakest sections. It is often noticed with how much more thoroughness—and expense—a Poor Law school will be conducted than the average education of the self-dependent classes. A first-rate moral and practical training is generally given, and the arrangements of the many charitable institutions, such as the Homes founded by Dr. Barnardo, are often a model to the private citizen. In the same spirit the beneficent School Medical Service, which was instituted early in the present century, was first offered only to the poor. It speedily eradicated some of the most persistent evils of neglected childhood and is one of the strongest factors in the marked general improvement of the public health.

As time went on public money passed to higher social strata of the population, including in the end even the two oldest and most richly endowed universities. But even so, if all the public moneys voted for education are added together, it will be found that far the larger proportion goes to the lower or elementary institutions. It is something like four to one, probably the highest in the world.

In some countries, e.g. in India, the proportion is actually reversed.

The social picture which these facts and figures paint is one of the most interesting in the contemporary world. It is not altogether a bright one, of course, and subsequent chapters will exhibit some of the defects. We cannot rejoice, for instance, in the herding together of masses of young children in the old large classes and the subjection of them to a moral and mental drill which is necessarily too uniform in such conditions. We may think that a home and a mother's care are more wholesome and natural for the very young, and agree with the great majority of other nations which do not compel the attendance of children till the age of six or seven, instead of five as with us. But one thing is evident, and its good results far outweigh the rest. In England the State, when it entered the sphere of education, came rather as the parent than the tutor. It put first the general well-being of the young and their training in character and left their mental direction to other hands. It spent the public funds from the first on the neediest, and expected those who could, to educate themselves. Can it be doubted that the union of the nation and its general contentedness are largely due to this line of conduct? In an age of extreme class bitterness elsewhere, and with revolutions threatened or breaking out in most countries in the world, we have followed the uphill path as one man. At the beginning of the nineteenth century, at a time of acute excitement and distress, the English working classes were preserved from revolution by the Methodists and the prevalence of religious faith. In the early twentieth century, the humanitarianism of the State and the public mind behind it have performed the same service, softened the asperities of passion and suffering, and bound up our society from the base.

The State as parent has many drawbacks. They will be

evident as we proceed. In no sphere more than in education should, first, the natural parent and then the individual himself, hold the reins and feel the burden. Yet, looking back on the first century of the State's action in this sphere in England, the fair critic, with an eye to the country's good as a whole, must declare a large balance on the credit side.

IV

THE EARLIEST YEARS

CHILDREN in England are now compelled by law to attend school—or receive some equivalent satisfactory instruction—from the age of five to the end of the fourteenth year. The upward limit has been gradually raised, by a number of small changes which do not concern us here, since compulsion was first introduced sixty years ago. A further raising to fifteen was included in Mr. Fisher's Act of 1918, and has been attempted more than once since, but it has not yet been put into general practice. It was never lower than ten, but for many years there were provisions that by passing certain examinations a child might be released from school either entirely or for industrial half-time at eleven or some other age earlier than the time of complete general exemption. Now age is the sole test, and the State is therefore in command of the child up to the time at which in earlier days the parent handed over his offspring as an apprentice to a master. We shall come later on to the new arrangements which are being carried out for the education of children over eleven. In this chapter we will consider what has been generally done with those whom it has been our practice to describe as 'Infants', i.e. those who were not thought mature enough to be submitted to the prescribed tests of the Standards which were expected to begin at the age of seven and to continue to the age of fourteen. At fourteen the average child should be fit to pass Standard VII and many brighter children were always able to pass it before that time and do some extra work at the top of the school.

This earliest period, before the standards or any other form of exact testing began, is certainly that in which most genuine success has been won. Such success becomes more

questionable as the age advances, and when we reach the age at which in old days the youth became an apprentice, the gaps and failures are most apparent. To some critics this progressive weakening of the good results has seemed a condemnation of the whole proceeding; but this is a short-sighted view, because the State was not responsible for the decay of apprenticeship and the lack has to be made good by many and gradual steps. The first and most necessary one was to give the young child a healthy and happy introduction to his life-work, and this, broadly speaking, our infant school system has achieved.

There is another reason why it was well that the public effort in education should spread, as it has done, gradually from the lower stages upwards. At first the child himself is the supreme consideration, and what we teach him—the material of instruction—is subordinate to his needs and nature. Hence kindergarten teachers have always been the greatest enthusiasts for methods appealing to the child's interests—specialists in his nature, activity, and happiness. To them mainly is due the present attractiveness of the school, the fact that it appears so often as a Paradise and is actually left with tears. That in such cases it outshines the home, we must regret; but, failing this natural first training ground, we must rejoice that the school presents that aspect of affection, happiness, and play which the child craves for. In that way only can he thrive; without it all discipline is bondage and any teaching but the sound of tinkling cymbals.

To advance gradually from this to the necessary restraint and concentration of more formal teaching requires a skilled art and the striking of many happy means between liberty and licence, selfishness and subjection, free play and instruction. But the infant school, like the good nursery, is the natural studio where this art may be practised, and there the subject of it is dominant and

irrepressible; we cannot mark our exercise books while he is studying.

The hundred years of State-aided education have seen the steady infiltration of new ideas and experimental methods in English infant and junior schools. Pestalozzi, Froebel, and Montessori have all found a warm welcome among us, and one may clearly see their common guiding thoughts making their way into wider circles and later stages of education. As this is not a book of educational method, it must be sufficient here to group these and other kindred influences together and indicate their common tendency.

Cheerful and affectionate co-operation is the fundamental and most important feature, and of this Pestalozzi was the greatest prophet for the young. Next would come self-teaching by activity, spontaneous, as far as possible, and desired by the child himself. For this purpose particular devices were invented—gifts, models, &c.—by educational theorists such as Froebel and Madame Montessori, who have often been followed too slavishly by teachers of more goodwill than independence of thought. Lastly, perhaps,—to distinguish the three leading traits in the modern outlook—would come the desire to return to nature, the nature not only of the child himself but of flowers and animals and the open air. Here the voice of Rousseau is speaking again, and not of Rousseau only but of the great company of those who are in revolt against the crowded, crushing, and noisy life of the modern city.

These strains in a sound education are better and more clearly combined in a good kindergarten than in any other part of the whole system of schools—a love of nature, a love of fellows, and a happy learning by spontaneous activity, guided, where need be, by a sympathetic teacher. If those who are questioning the betterment of education were to answer themselves only from the infant school,

even the most sceptical would be convinced. The upward movement is world-wide, and it will have been noticed that the three most famous names quoted above—Pestalozzi, Froebel, and Montessori—are not English. Yet it is probably in England that the humane system for which they stand has been most widely and firmly established. It is linked up in England with a general kindliness of temper which finds expression in friendlier and more tolerant relations between classes and a comparative absence of crimes of violence. It has been spread throughout the country by a uniform system of government grants and supervision, and spread downwards in age by the admission to the State-schools of younger children than is customary elsewhere. This, while having a detrimental side in lessening parental contact and responsibility, has been the most successful piece of government organization in our times, and we shall have occasion later on to notice some other of its effects.

But it would be unfair to pass without a word of recognition at least two of those outstanding figures of humanitarian reform who, without special interest in the details of infant education, exercised the most powerful influence in the same direction. These are without question Lord Shaftesbury and Charles Dickens. Both stirred the public conscience as no one else stirred it in the nineteenth century, Shaftesbury by the negative method of abolishing the worst horrors of child labour in a life of passionate concentration, Dickens by the imaginative evocation of love and pity for the types of child-life and suffering which he created.

The good infant school, while true to the three fundamental principles which we have traced, attempts always to give a definite introduction to formal knowledge and thinking. In doing this even the most whole-hearted advocate of free development must bow the knee in the temple of convention. As well as playing and training his

senses the child has sometime to learn how to express himself in language and how to count and measure, and it is agreed that these things should be tackled before the seventh year. Here, therefore, the teacher must definitely intervene as representing the authority and the conventions of the adult community. No one suggests that the infants should be secluded, like the babes in Herodotus, to improvise their own language and arithmetic. They must begin their career in the world by entering into the heritage of wealth and restriction which has been prepared for them by the past. They do so, indeed, from the first moment of their existence; their biological being is a creation of time, an epitome of history. But, after birth, at every stage in their conscious education, a struggle goes on between their free—sometimes selfish, sometimes ideal—strivings and the forces of nature and of society which are surrounding them. In this conflict the older practice tended to repression. 'Go and see what Tommy is doing and tell him not to' is the summary of this attitude. The newer school in its extreme form would substitute for this the rival maxim, 'Let the divine self go free'. The art of the teacher consists mainly in discovering and securing the middle course.

Happily for our peace and the future welfare of the young the majority both of parents and teachers emerge with fair success from their trials. In the infant school language-teaching begins at once in the form of stories and song, and under Montessorian influence reading and writing also start rather earlier than was the ideal in pre-Montessori days. Into the details of all the attractive games and devices which are now employed to gild the pill, it would be foreign to our purpose to enter. Suffice it to say that in favourable circumstances the child is able to read a little story and write simple sentences by his seventh birthday and that he does this in an atmosphere of play which makes for most children these earliest years the

brightest spot in their school memory. The clever teacher also gets made a vast variety of objects in clay, paper, cardboard, &c., to illustrate the lessons and embody the children's images derived from talk or reading or observation. Drawing, often in colours, also enters in, mostly in connexion with other lessons. Such in brief outline is a modern infant school, and it is a triumph of humanity and common sense. One may well sacrifice, if need be, the early acquisition of reading or other formal matters to secure the best preparation of physique, intelligence, and behaviour for use in later years. We may be proud of the infant school at home and rejoice whenever we find its counterpart abroad. Only, in fact, in those cases where some enlightened agency has provided this basis, can the later education be truly and firmly built. In many countries, especially in the East, the impulse comes from missionary effort, and it is balm in Gilead to find through such means a good kindergarten on the arid soil of countries like India or Egypt where official education has been mostly a soulless cramming at a later age.

One or two questions must not be held to lessen, but only to supplement, this appreciation.

The first has been already glanced at. If we hold that the best environment for a child is a real home and a mother's love, we must put that first in our ideal schemes for the future and be ready for reasonable relaxation of the present law of early compulsion. Though the ideal may be still remote for many people, and the relief and the advantages of the present system real and substantial, we should encourage the mother to teach her child. A mother's love is the strongest tie between human beings, the most enduring potential force. Is it a wise economy of our resources for good not to rely on this force and use it to the full? Its use is also a benefit to the mother. We educate ourselves by educating others, and no mother who knew

all that it might mean to herself and to her child would voluntarily relinquish her natural primacy.

Another frequent, though smaller, question arises from the persistence of a certain sham play and the reiteration of verses and games and stories which are a weariness of the flesh to quicker-witted children. The difficulty comes from the necessity, largely inevitable, of teaching many children of different mental capacity in classes together. Some like nothing better than repeating their old favourites—whether songs, or games, or what-not. Others are longing to be doing something sensible and have a more questioning mind. We have so far catered rather for the former class, but, though we are all agreed in reprobating the inhumanity of James Mill in teaching Greek to the young John Stuart at three years of age, is the inhumanity really more serious than nauseating a clever child with silly rhymes when he may be really longing to be learning something? ‘Oh, that those “Three Brown Bears” might be dead and done with’, has been the prayer of many a sufferer.

This leads to a larger and more serious question. Are we quite sure that young children cannot healthily and profitably learn far more than as a rule they do before the age of seven? Plenty of them do in favourable circumstances, and, as with Mill, it seems to have been more frequent in earlier days than it is at present. A lady who knows perhaps more about birds than any other woman in England stated the other day that her passion for the study was rooted in her by the age of five, when she would totter from her father’s library under the weight of one of his bird-books almost as large as herself. At the age of five we often have the most uncanny intuitions.¹ Can it be quite wrong to lay hold of these premonitions of knowledge, these trails of glory, and begin to use them for the

¹ A boy of five, well known to the author, remarked in bed one morning: ‘Dad, will not God some day give us back all the yesterdays?’

enlightenment of our later course? Language, Nature, and Man already confront the developing mind. It might assuredly absorb without harm more strengthening material from without than it does in the average infant school, happy and well organized though it is.

One or two illustrations are all that is possible within our limits. In language it is easy at an early age to give—or rather to evoke—a taste for really good poetry. The good is more congenial at this unsophisticated stage than the tawdry and sentimental. The stronger we can make good taste at an early age the better it will resist corrupting influences later on. It is also quite possible—though not of course in the conditions of a large class—to begin the acquaintance with another language besides one's own.

Faced with the simple phenomena of nature from the first, the young child can quite well begin to understand why we eat and breathe, how plants grow, how burning is a common fact—both in living things and in the working of machines. The sunlight, wind, rain, and thunder are all familiar facts which naturally arouse the child's curiosity. To satisfy it, as far as the infant mind can bear, is to lay the foundation for further inquiry and incidentally an education for the teacher.

The same idea, applied in the same spirit, is at least as true of the study of Man. Childhood is the age for stories. Without excluding the true gems of folk-lore which have proved their worth by their persistence, there is still more reason for introducing tales of Man's veritable struggles, his heroism in fighting and endurance, the marvels of his discovery. Such things are of course often told, even in infant schools, and there is a welcome tendency to increase them. But much more might be done, and especially in finding out and keeping alive the local and national stories of which Sir Walter Scott left an immortal example. But this is leading us on to another chapter.

V

THE VILLAGE SCHOOL

A LETTER in *The Times* of 4 August 1932 was a pleasant breeze in an atmosphere unusually heavy, beside the accustomed depression, with laments on the decadence of youth and the waste of money on education. It shall be quoted verbatim, and those who wish for details of place and persons can refer to the files of the paper. The writer is the vicar of a country parish, and he says, 'If it was true that Waterloo was won at Eton, there is good ground for hoping that the victories of strenuous peace are being won in our village schools to-day. We have one such here in this far-flung parish, an elementary Church school, typical no doubt of hundreds of others, to which boys and girls from five years old and upwards walk three and a half miles and more each way to school and are not so "fatigued" but that they can work keenly and play hard without artificial stimulants and encouragement, where boys can take a deserved caning without whimpering or sulking, where the team is the thing and cricket (without pads) is played to win or lose, and where poultry- and rabbit-farming (and a calf-club in its season), managed by the boys and girls themselves, are run at a profit. . . . When sometimes on a winter's night I see our choirboys off on their second return journey, the older shepherding the tiny "kids", disappearing into the darkness—and on occasion the snow and rain—to cross wide lonely fields, difficult woodlands, and frail river-bridges and the terror of motor roads, with but one candle-lantern to light the party, but with shouts of merriment and fun, I do not fear that the spirit of gay adventure—and of manly hardihood and unselfish service—is dead among us, or likely to die out among the modern youth of our country villages at

least. . . . Our villages have owed much to the public schools in the past. Maybe they can pay back again to-day some lessons learned from them.

‘Our local knock-out cricket tournament matches, played before “gates” bigger than at many a match at Lord’s, seem to have more of the spirit of sport—and I think of cricket—than has lately been in evidence in some of the public school encounters on the world’s greatest cricket-ground.’

The picture here painted and the manner of painting it are both delightful and encouraging. They are also typically English and raise either directly or indirectly most of the points which occur to the student when he comes to the next stage in national education. The village school is actually and historically this next stage, and the picture brings out the strong points in the thing typified. No one will imagine that all village schools, or even the majority, can be as attractive as this one. That is a reason the more for making the most of a good case when you find it.

It is typical of England in the fact that stress is laid on the character and activity of the scholars, and not a word is said of their attainments in those matters of intellectual education which we began to discuss in earlier chapters. It is typical too that the games’ side is prominent. That is the side on which all Englishmen are at one, and the vicar, in pointing out both the link and the difference between the schools of the rich and the poor, ends in this case with a comparison in favour of the latter. It is a picture of sport, adventure, comradeship, and cheerfulness among the scholars of a village school, with a friendly dig, but no jealousy or hostility, at the richer foundations. No doubt it was written by a man who had had experience of both, and the fact that he is the clerical manager of the school he describes, completes the significance of the case. It could hardly be paralleled in any other land.

The clerical manager takes us far back in the history of education, and might indeed entitle the village school to be treated as the starting-point of our national system. Just as in the Middle Ages schools had been attached to cathedrals and monasteries, so after the Reformation, first in Scotland, and then more gradually in the southern portion of the kingdom, a little school sprang up in every village 'marked with little spire'. These village schools are still the most abundant relics extant of the medieval union of education and religion. Their religious origin is indicated by the location of the school building with its teacher's house, generally the nearest to the church except the vicarage.

Their religious connexion was maintained in a modified form by the Balfour Act of 1902 which enacts that in 'non-provided' Schools (i.e. not provided by the education authority but taken over from the religious managers) the representatives of the body which has built the school shall have four places among the six managers. The other two are filled by nominees of the local authorities. The four foundation managers are as a rule led by their clergyman or priest who is generally *ex-officio* chairman. The school may of course have been founded by any other religious body besides the Church of England, though the national church has far the largest number, the Roman Catholics coming next. Of the other 'voluntary' schools nearly all have since the Act of 1902 been handed over to the local education authority, who pay the teachers and determine the secular curriculum in all schools alike. The difference and privilege still remaining to the 'voluntary' managers is that they appoint the head teachers, subject to a veto on educational grounds by the authority, and they control the religious teaching. For these privileges they have the obligation of keeping the fabric in repair.

This was the compromise which excited so much furious

opposition in 1902 and has been maintained with growing ease ever since.

It will be understood that, since that date also, schools both primary and secondary have been built continuously by the authorities, so that now the larger number of scholars are in the publicly provided and publicly managed schools. But the majority of the schools still remain 'voluntary', the explanation being that the 'voluntary' schools form the bulk of the smaller ones and the authorities have had to build to meet the demands of the large towns. Educationally, there is now little to choose between the two types: one may easily spend days in a school without knowing to which category it belongs. Generally, the newer building denotes a 'Council' school and where the parson takes so much pride and interest, as in the letter quoted, it will in most cases be a 'Church' school. Plenty of the clergy, however, act as managers or chairmen of a council school, and it is obviously a form of public work in which a sensible parson with a dose of sympathy for the young may do much good.

Volumes have been written about, codes and regulations written and re-written for, the work of our elementary schools. It must suffice to sketch very briefly the main lines of their development. In the earlier days their object was conceived to be to teach the children of the poor to read, write, and reckon. For this, though poor, they were expected to pay a few pence a week. In the hundred years in which the State has dealt with them, the three or four chief changes which may be discerned are: (1) Their scope has been widened. Although the three Rs still take the bulk of the time, many other things appear on the time-table; (2) The teachers are much better paid. There are more of them in proportion to the scholars, and the paid monitor and pupil teacher have almost disappeared. (3) The educational standard of the teachers has been largely raised.

5,000 of them have university degrees and all are now compelled to take a course of training as a condition of headship. In place of the old pupil-teachership, the entrant to the profession now comes from a secondary school, where he or she remains till the age of 18, and then proceeds to a training college or training department of a university for two years or more. (4) The proportion of women Heads has largely increased since early days, and the great bulk of the profession are women. But in the last few years men candidates have increased again and the proportion with us is far greater than in the United States, though less than in continental countries. (5) Fees have been abolished and books and all school materials are supplied gratis.

On these material and statistical facts the layman observes that the national school budget is enormously increased and wishes to know whether the article supplied is improved in proportion. No answer is possible, if the question is put in those terms. The abolition of fees and the gratuitous supply of school material are questions of public policy, of socialism, if you will, and must be decided as such. As to teachers' salaries, it is as impossible to equate these with the effect of their work, as it would be to carry out a similar algebraic operation on the work of ministers of religion. In both cases the nation is fully justified in demanding that the work should be well done, but the payments given in money cannot be measured by results. As to the main question, whether the work is well done and improving or not, one may come to some sort of conclusion on rather impressionist methods, and it is one of the functions of the inspectors and experts of the Board of Education to aid the public in forming a just opinion by supplying them with the results of a continuous survey.

Such reports have now been going on for about a hundred years, and it will be interesting to note one or two of the chief turning-points.

The first came towards the end of the 'fifties in the nineteenth century. The political public had become alarmed, by some of these reports and other indications, as to the defective education of the 'labouring classes'. A Royal Commission was appointed under the Duke of Newcastle, and issued a report which had a good deal to do with the framing of the Act of 1870. It also led to what was called the 'Revised Code', introduced by Robert Lowe in 1862. This Code regulated the distribution of government grants to elementary schools for over thirty years and was the nightmare of the more liberal-minded inspectors, like Matthew Arnold, and of all who looked beneath the surface in education. It narrowed the outlook of teachers and taught, long after the time during which it was enforced. Its object was to obtain some mechanically measurable results, and in doing so it certainly imposed a standard of hard work, a pride in accuracy, and an external efficiency and uniformity in the school work, which have largely survived their cause. While other nations were drilling their conscript youth in the barrack yards, we were drilling our still more youthful minds in the classroom, and one is inclined to think that something of the extreme orderliness of a British crowd is due to Robert Lowe's Code of 1862. But the details were ludicrous almost beyond belief. Every child above the infant stage was compelled to be examined annually by an inspector in his reading, writing, and arithmetic. Crosses for a pass and noughts for a failure were entered on a schedule. The percentage of passes was then calculated by the inspector in his off-time, and on this percentage the government grant to the school was assessed, including in most cases the teacher's salary, which thus varied in a manner satisfactory to those who hold that a mathematical equation can be established between money and educational efficiency. The introduction of this commercial device came mid-way in the official career

of Matthew Arnold and spoilt his work and that of many others. The moral effect on the teachers may be imagined. The baser resorted to trickery of all kinds to circumvent the test. The nobler threw themselves on the support of a Higher Power. 'O Lord', a religiously minded head master was heard to pray on the examination morning, 'give us strength this day that we may get all our four sums right.'

At the next stage the system began to crumble by its own weight and absurdity. The work of the schools overflowed the narrow bounds provided by the schedules, and extra snippets of grant were added for extra snippets of education. So much geography or history, so much grant, and so on. Before the end of the century all the schools were teaching drawing and a favoured few had a manual room, a school garden, or a little science. Then, just before the Act of 1902, at the turn of the century, a clean sweep was made of the whole thing and a block grant paid on attendance, subject to a satisfactory report from the inspector. Under the latest system which that Act introduced, all grants are paid to the new authorities on a general ratio, and these local authorities, in consultation with the Board's inspectors, settle the curriculum and supervise the activities of the schools.

In the happier present, to which the vicar's school belongs, a genuine effort, widely successful, has been made to provide all the elementary scholars in the kingdom with a sensible curriculum, including manual and physical training. A large proportion of the country schools have their garden, and a considerable majority of the girls are trained in cooking and other domestic work. There is no longer the nightmare of the annual examination with its payment by results. The work of the children is tested by the head teacher and sampled by the inspector on his occasional visits. The brighter scholars are selected, as we shall see in the next chapter, for promotion with a county

scholarship to a secondary or selective central school, and may proceed thence with other scholarships to the university.

This selecting process must be discussed in some of its many bearings later on. Our picture here is of the average smallish school where boys and girls (except the few scholarship winners) all remain together till the end of their fourteenth year. A process is now on foot for transferring all the older scholars to general central schools and this also we must discuss later. But the average complete mixed elementary school must be said to be a useful and happy place, not of course rising in every case to the heights which the vicar describes, but well above the level which would be found generally in similar conditions in other lands. The teaching of boys and girls together, which is practically necessary, is thought by most teachers in the circumstances to be educationally an advantage. They know one another out of school and friendly rivalry results from their association in class. A common arrangement is to have a head master over all and a chief woman assistant with special duties towards the girls. The grouping of small schools, which is desirable on economic grounds, will encourage this and be an attraction to the men who, it is good to hear, are taking up teaching in larger numbers.

The work done in the schools was no doubt more accurate on its narrow lines in the old days of the annual examination, but the increase of freedom and interest far outweigh the loss. Much more reading of a varied kind goes on, and the constructive work, now universal in classroom, workshop, or garden, is a thing undreamt of when the school system began or when Matthew Arnold went round.

The last forty years have also seen the complete installation of medical inspection and a resultant vast improve-

ment in cleanliness and physique. The former was essential if cleanly children were to be compelled by law to attend school and associate closely with the neglected and unclean. Perhaps there is no one point on which it is possible to be more certain and more content about the whole system than this, and it is interesting to note that the editors of the *New Survey of London Life and Labour* lay unanimous stress on it. London in this is typical of the country as a whole.

The progress of public health, they say, has benefited immensely both from the direct and indirect results of the education service. A reading and discriminating public has been substituted for an illiterate and ignorant public, and a new public opinion has grown up which now supports instead of thwarting the sanitary reformer. The saving of child-life has been the most striking statistical result, for the rate of child mortality fell in a way unexpected by the most sanguine doctors. This is a report on a generation, the children of those who had passed through the schools.

The system of schools on which this report was based is now being remodelled, and doubtless as soon as public affairs give our rulers a breathing space, the age of attendance, under certain conditions, will be raised. It is natural to ask how far the experiment of 1870 has been a success. The answer will depend upon the relative value we attribute to the various aspects of the school work; in any case it must be largely speculative, for changes in popular taste and intelligence are due to many other causes beside school. But something can certainly be said, as the writers of the London Report have said it.

If we put first the increase of general health and power of enjoyment, the school system of sixty years has greatly contributed to it; and there is good reason why this aspect should come first, for higher things are impossible without

it. The schools have strengthened the vitality of the nation.

If we take as a test the spread of reading, one is apt to be discouraged by the mass of poor stuff in circulation and the want of taste both in literature and art which afflicts both eye and mind. But it would be impossible to limit this defect to those who have passed through the elementary schools, and it is more to the point to dwell on the wide development of general knowledge and intelligence now being specially cultivated by broadcasting. This is based on previous training in the schools. English broadcasting has taken the lead of the world because of the large public prepared for it, and prepared to pay for it, by the social and educational work of the last fifty years.

If we take a more serious line, and ask what proportion of those who have been leaving school at fourteen continue their studies and are actively interested in any branch of knowledge, the answer is less encouraging. Judged by this test, our school system would appear a failure, and no attempt should be made to palliate it. Art, Science, History, all the things that these stand for, are being learnt and built up by Englishmen, and no one can be content that this work should be done by a mere handful among the millions of the population who are all politically equal.

Some reasons for this failure and some suggestions for its remedy will appear later on. But one is compelled after all to end this summary judgement on another note. The elementary schools, especially of the type with which we began this chapter, have done more than improve the health and strengthen the vitality of the nation. They have largely increased its corporate spirit, its orderliness, and its willingness to help. The Boy Scouts Movement, the Girl Guides, the new Youth Hostels, the Young Farmers clubs, the School Journeys Association, all these and many more,

if they have not arisen directly from the elementary schools, have been fed by them; and those who have worked for any popular cause know well how easy and successful is the appeal either to the teachers or the scholars.

The corporate units flourish: now let the divine self arise.

the benefactions of the past; the other, socially, from below, the schools provided for the poor by the rates and taxes of the present. This converging growth has gone on at an increasing rate in the present century, until we now see, between the two extremities, a large number of schools which combine the original characteristics of both, are ancient foundations with a certain endowment and an income from scholars' fees, and yet could not be carried on without support from the State, which naturally imposes conditions when it gives a grant. State money therefore and State control have been spread in wider and wider circles as the demand for education has increased.

It may be interesting to examine the story a little farther and see how the process has gradually overtaken the middle classes, as we saw in Chapters III-V how it was deliberately applied to the poor.

During the 'nineties of the last century a number of elementary schools, mostly in large towns, had added to themselves higher classes, doing mostly elementary science, sometimes with laboratories, and receiving grants from the new government department at South Kensington, established a little before to encourage the study of science. This arrangement was challenged by the government auditor of the elementary school accounts, and it was declared illegal by the famous 'Cockerton judgement'.

The schools, however, were there and could not be given up. They became in most cases secondary schools under the Act of 1902, which gave the new education authorities power to raise and spend money on higher education. The weaker 'grammar schools' and other schools of old standing, also transferred themselves to the new régime; and other old schools, while not wishing to go over bodily and become 'provided' schools, were allowed to receive, on certain condition, public assistance and were denominated 'aided' schools. Beyond these again come all the

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VI

THE NEXT STEP

THE village school at its best is the happiest and most natural type of the elementary education which the State made compulsory in the 'seventies. But village and town both started with the same Code and are still in their main features much alike. Before the end of the century, however, two great advances became necessary, and Matthew Arnold was the pioneer in both. He called, as we have seen, for the freeing of the primary schools from the chains of the examination system and still more insistently for the organization of secondary education. The two things came together after his death at the turn of the century.

To Arnold it was the 'Philistinism' of the British middle classes which made State action in secondary education most urgent. Actually the change was brought about by pressure from below. The elementary schools, especially in the towns, were adding classes for science and special subjects which were nominally part of the elementary system but pointed the way to something else. From these, as we shall see in a moment, the secondary school was born, and the result of this growth, the emergence from below of a new type of State-endowed schools in the midst of a profusion of older, endowed, and private schools, has been to equip the country with a set of educational institutions which, sometimes the admiration, are always the puzzle of those who study them, especially from abroad.

The explanation of their complexity is historical, and the simplest way to picture the whole is as two great masses of schools, originally independent, but growing to meet one another, one, socially, from above, the schools of those who could afford to pay or were somehow privileged to enjoy

wealthier and more independent schools which desire no public money or refuse the conditions on which it is given, but are in most cases glad to be inspected from time to time and receive the expert advice of the government's staff.

Thus within a hundred years the network of State control, advice, or assistance, was extended, with a minimum of actual compulsion, but with a pervasive influence, which, directly or indirectly, is felt in almost every quarter.

The organization of secondary schools took place within a few years after the Balfour Act of 1902. It was not the end, but rather the beginning of a new upward movement. Schools already in existence as 'Higher Grade', and many of the older grammar schools, were taken into the new official class of schools, and a small number of scholars began at once to be admitted to them by scholarships and 'free-places'. But what of the mass of older scholars in the elementary schools who still remained there? It was clear to all who knew their condition that they were capable of far more instruction than they were as a rule receiving, even if they remained at school only till their fifteenth year. It was to meet their case that several local authorities, and in particular London, began very soon after to organize central schools which might collect all, or a part of, the older scholars in convenient areas and provide a more complete and somewhat more advanced education, while remaining nominally within the elementary school bounds.

This new swarming off from the top has again, under the influence of Sir Henry Hadow's Committee,¹ become differentiated into two classes of schools, both nominally elementary, one, the central school proper to which access is given by examination at the same time as to the secondary; the other, the senior school aiming at taking all the senior scholars of a district where transport makes

¹ See *The New Prospect in Education*. Board of Education pamphlet.

it possible, and giving them a better chance than if they remained in their original all-in elementary school. The central school proper is selective, keeps the scholars a little longer, and approximates to the secondary type. The senior school is more strictly elementary and only groups together the senior scholars of neighbouring schools, with the view of giving them the advantages—in staff, equipment, and so on—that larger numbers permit.

The other side of the case should be mentioned. The grouping plan has several drawbacks to face. It involves the transport of scholars over various considerable distances in all sorts of weather. If over two miles, the law does not compel their attendance, and in most cases the local authority has to find means of transport with all its difficulties of time, discipline, accidents, and expense. Then teachers and managers of the decapitated schools can often make out a good case for the retention of the older scholars, in order to maintain the general standard and prestige of the place. And lastly comes, sometimes the most serious difficulty of all, the need of enlarging or improving premises to give the grouped scholars the opportunity which is offered them. It is remarkable in these days of financial scarcity how much has been done by voluntary effort in this matter of building, especially by the two oldest churches in the land.

It is estimated that already some 40 per cent. of the older scholars in elementary schools are receiving such grouped instruction in senior schools, and the selective central and secondary schools have been growing at the same time. The position is ripe for a general review. The broad facts are that we now realize that the earlier ideal for which primary schools were started, can be reached before the age which is prescribed by law. From twelve years old to fifteen or sixteen, the young people are still compelled to remain at school and we ought to see that they make the

best use of their time. This next stage should be planned as simply and comprehensively as possible. For instance, there are plenty of places where one school to serve all the purposes of advanced education (i.e. that falling between the elementary and the university stages) would be quite sufficient. It would, of course, provide a choice of work for different types of scholar, but would avoid the confusing formal distinction between 'secondary' and 'selective central', and be both more efficient and more economical. Elsewhere, mostly in the larger towns, a greater specialization may be advantageous, but it should follow the line of types of work and not different social classes.

Local variety is a pleasing and stimulating thing. It encourages the patriotism of the localities. If Village A prefers to keep its older scholars, and protests that it can do better for them than sending them two miles to Village B, freedom and common sense—subject to considerations of expense—would suggest allowing the experiment.

Such are a few of the multitude of vexed questions which consume the time and patience of the administrator. He has the hearty sympathy of all who know his task, and when one says 'simplify' it must not be understood to imply the ignoring of details, but the treatment of them on broad, human and educational lines rather than as matters to be settled by the application of some accepted or official rule. The subject bristles with examples. One can here only give a few general reflexions which the changing scene inspires.

The first is an encouraging thought. In the last quarter of a century, since the Balfour Act and especially since the war, there has been great pressure upwards in all grades of education. It has been calculated that, on the average, a year has been added to the school-life of every child in the country and that for at least three hundred thousand

children three or more years have been added. This is partly economic no doubt; in the greater pressure for work parents have been willing to allow the child longer time to learn in order to improve his chances. But it is also in large measure conversion. Education has become more valued, and the general acquiescence in the law of compulsion has much lightened the labours of school attendance officers. The last economy committee calculated that we might now save the services of four hundred of them. The school authorities are therefore working on a rising market which always puts heart into the investor.

The second general reflection which the subject suggests, is that the best results so far achieved have unquestionably been in the lower grades where the dominating thought has been the nature of the child himself and his reaction to the educational process, and where the limitations of schedule, classification, and examination have been least felt. No one would wish to see all schools become a continued kindergarten; but certain fundamental truths have been more effectively grasped by those who have to deal with younger children, while with the older children we have allowed ourselves to become absorbed by the mechanics of the business, and have been thinking less and less of the final product.

Much of this thought about organization and the mechanics of education is doubtless necessary; the larger and more complex a system becomes, the more thought the mere running of it must demand. But much is gratuitous. Subsidiary and often purely artificial questions turn up which assume the shape of first-rate problems on which the sharpest wits of teachers and administrators must be expended. The examination system, as we shall see, furnishes a rich crop of these. The classification of schools and the conditions of the admission of scholars are another source. It has actually been thought necessary to hold

separate 'Short Courses' for the teachers of history, one for elementary and the other for secondary teachers.

The more complex the system, the more urgent it is to try to see it, but not govern it, as a whole. The nation is now going to school more willingly, but by various routes. We shall consider their convergence in the next chapter, but one may say at once and with confidence that it is highly desirable that they should be different. For human nature is different, and has not been brought to a common pattern even in an age of mass-production. Individual effort, parental knowledge and encouragement, public interest and assistance, embodied in the teacher but supported by wise and expert thought in the background; these are the factors of success, in that order. Sixty years of compulsion and of increased expenditure on schools have done much. The nation has grown in health, in general intelligence, and in orderly co-operation. The advance would have been far greater had the factors of success been better observed in their natural order.

VII

EQUAL EDUCATION FOR ALL?

THE upward movement we have been describing and the spread of State action over the whole field of education raise interesting questions. Where will it all end? Where should it end? One must attempt some sort of answer to these questions in a day when every one deals in futures, either in hopes of a rise or, more often just now, from fear of a catastrophe. We pause here therefore to make such a forecast, because in the next chapter we are entering on the other main section of the national system of schools, the private and 'public' schools which have grown up and continue to grow up, without the authority or direct control of the State either in its central or local capacity. Exact figures are not available, owing to the freedom of this outside growth of schools in England; but it is estimated that some four hundred thousand children are now in private schools, mostly doing work of an elementary character. The 'public schools' account for some hundred thousand. The grant-aided secondary schools for another four hundred thousand; with a great majority of the population, some five million and a half, in the public elementary schools. It certainly looks, on figures alone and in view of the rapid growth in the numbers in grant-aided institutions, as if the future lay with them. We have to add to this one or two other facts. Many of the private schools doing elementary work are in a weak position financially. They continue to subsist because the parents desire something socially superior for their children, but their teachers are worse paid than those in grant-supported schools, and if such publicly managed schools were made attractive enough to struggling parents, the private schools would fall off still further. Besides this,

comes the political demand that State action should be steadily directed towards increasing the facilities offered by public money for education, and that it is desirable that all classes should be educated together and all continue their education to the same term of maturity. Such an ideal is with us by no means the monopoly of a class. Many Etonians would endorse it, and it was warmly defended not long ago at a meeting of a society at Eton which discusses such questions. Every poor boy, it was then said, had as good a right as any one present to enjoy such advantages as Eton offers.

This is a definite ideal and it deserves examination. And here, before we pass on to consider other types in our national system, is the best place to do it.

The 'right' invoked is clearly not a legal one. It must rest entirely on moral or moral-political grounds. We must either say that the child himself has a moral right to a complete education, just as it would be admitted that he has a moral right to food; or we must say that it is to the interests of the community that he should have this complete education. The appeal in the former case is to the moral sense of the community; in the latter to the general opinion of what is to the community's advantage. In the former, it is no doubt true that we have now attained a moral standard which would demand a modicum of instruction for all our fellows, as it demands sufficient food. But it is not the case that the moral sense of the community demands equal education for all. We are driven therefore to the last ground of 'right', i.e. that it is to the advantage of the community that this complete education should be given.

'Rights', when based in this way, are at least arguable. If we base them, as the right to food would be based, on the absolute and undeniable claim of the human being, there is no more to be said. But if the ground of 'right' is the

general good of the community, there is abundant opportunity for difference of opinion. No two people would agree as to the constituents of the general good. There will be certain common features, no doubt, but for the rest every one will paint it in his own colours. If we care about the future and the general good, as we should, no doubt we shall be eager to convert others to our own view of what these constituents should be. So far as we make converts, our ideal is more likely to be brought into being. This is indeed the healthiest side of a democracy; it gives hope and provokes activity among those who have an ideal for the future.

This ideal of an equal education for all, provided, or at least guaranteed, by the State, has a true, even a noble, element in it. Turn back to Chapter II. If it is true that every man worthy of his calling has a duty to develop all his powers to the full, one must applaud an ideal for society where this is accomplished. One will only differ as to the means by which it should be brought about. The complete theoretical socialist, for he is the defender of the policy in question, goes straight from the admission that a certain state of things would be good for society, to the claim that, if so, it is for society as a whole to take steps to secure it. Now in education the duty lies obviously on the individual, for he only can know fully his capacity and inclinations. Others may help him, including the State, but it must be for him to do the work. Hence the discussion becomes a practical one, turning on details; if such a course is taken, how far will it help the general end in view? Will it involve the sacrifice of other things, perhaps more valuable? Is it possible with the resources at command? and so forth. In such practical discussions socialists on public bodies have shown themselves nearly always enthusiastic friends of education. It is no doubt largely due to their recent prominence in European politics that education has taken

the forward steps to which allusion was made in Chapter I. At home the administrator and teacher are apt with good reason to regard the Labour members as their best friends. They are keen about the thing and want the children of the poor to be well educated. Yet one is bound, even against them, to press the wider point of view and ask whether the desirable end, and other goods also, may not be attained by relying on freer and more self-reliant activities than the State can prescribe.

There are two main directions in which the State may affect public education, apart from the advice it may give, or the statistics it may publish, like the American Bureau of Education at Washington. The first is compulsion by a law of attendance at places of education; the second, assistance out of public funds for educational activities. Both these methods of action involve compulsion, but the former is more far-reaching, because if the State compels attendance at certain places of education, it becomes directly responsible for what goes on there.

Both methods would need to be invoked to the fullest if the ideal of equal education for all is to be realized. Let us take the former first. There are of course many degrees of compulsion. You may compel the full-time attendance of a young person at school up to a certain age, or the part-time attendance at a place of continued or technical instruction, or you may place the obligation on the employer of labour to provide some form of education and see that he does it and that the employees attend, as is done with insurance. In all these cases one can only proceed by general consent, and so far the general consent would seem to be that, given proper provision for their instruction, we might compel full-time attendance till fifteen and some part-time attendance during a period which would correspond to the old apprenticeship. It should be noted that if we do this we shall be in advance—

so far as the age of compulsion is concerned—of nearly all other countries. From having been the least regulated land in the matter of education we have taken recently some giant strides in the other direction, e.g. in examinations. This further extension of age to fifteen may be wise: in the case of technical training it seems highly desirable; but it is well to remember that all such steps are far easier to make than to retract, and that in the past a great deal of the most constructive and useful work in England and the world has been done by young men with little formal education, fending for themselves at an age when we already compel them to remain at school. Faraday began to think about his life-work after he was apprenticed to a bookbinder. George Stephenson, after having been a cowherd as a boy, became at fourteen assistant fireman to his father at a colliery, and could not read till he was eighteen.

No doubt the recent advances in science and technology make a longer preparation necessary for any special work. This does not point to the prolongation of the time of compulsory attendance at school, but to the provision of special training for those who need it. By the age of fifteen the pupil's bent will have shown itself, and appropriate training should be given in connexion with his work. There will be occasion to speak about this in a later chapter. So with those who are marked out for a life of study or research; the power will have shown itself by then in nine cases out of ten, and opportunity rather than compulsion is what is needed.

This natural bent, involving some power of choice, should be cultivated and observed earlier than it is. Many go through a full university course, prescribed for them by others, without discovering it, though it naturally arises in the course of intelligent teaching. The lively child of tenderer years generally has some strong inclination; he would be a farmer, an engine-driver, a doctor: then we

put upon him a weight of knowledge, school exercises, examinations, and so on, which seem to have no relation to life and smother his natural activity. The first instinct was crude but in the right direction, and his education should have enlightened and not extinguished it.

The general conclusion must be that a prolonged period of formal teaching, imposed on every one in the interest of an abstract theory, is almost certain to be a burdensome and repressive thing. We need the active interest of the person being taught to make it thrive. The point to which it should be prolonged, the best means of avoiding its possible evils, and making it fruitful, are questions of experience and difficult judgement. It is agreed that the school experiment so far, with compulsion to fourteen, has justified itself on a general view. In making an extension it is right to weigh carefully the pros and cons and give greater weight than has hitherto been given to the value of free activity both in school and outside.

The other main line of State activity—the provision of funds for educational objects—must be judged by largely different canons. It is one thing to say, ‘Every one must go to a certain school or college’, and quite another, ‘If a certain number of people desire a certain educational thing, it shall be given to them at the public expense,’ or, ‘We will offer certain educational facilities provided so many make use of them’. The latter attitude is open to none of the objections which may be urged against the former. It becomes a question of the desirability of the object, the amount of public money available, and whether the object could be gained by the free offerings of those who are interested in it. We have always been proud in England of getting most of such things done voluntarily while other nations have had to rely on the taxes. So with hospitals, theatres, opera, learned societies, exploration, and many other objects of a generally educational kind.

We shall see in the next chapter or two how this practice is bound up with the other great side of our formal educational system. There seems no final abstract reason which should decide us one way or the other in the matter. So far as we are biased in the view set out in these pages, it would be in favour of doing as much as possible voluntarily; but that is no final argument. Should there be a publicly supported opera or first-class theatre in every big town? The argument seems to be leaning that way, if money were easier. Meanwhile let us give our heartiest support to Sadler's Wells and the Old Vic. Should there be a College of Recreation as suggested by Dr. Jacks? There can be no compelling reason against it, if Dr. Jacks will tell us in clearer detail what the programme would be, and has in mind some competent persons to make it a success. On graver lines, one can think of a hundred objects on which public money could be usefully spent without objection, if the money were available without bankruptcy. Schools, technical courses, and colleges of many kinds, above all the purest and highest types of research, are calling out for support, and if private resources are not to be so abundant in the future as they have been in the past, more must be given by the taxpayer. Unfortunately both the tax-payer who might contribute voluntarily, and the State as tax-receiver, are just now in a tight place together.

The argument may seem to have wandered somewhat from the general theme of 'equal education for all'. But it will be easy to recall it. Rejecting on every ground—the loss of freedom, the need of variety in work, the impossibility of expense, the oppression of a machine—the ideal of a prescribed common course of education for all at the public charge, we have come back to consider how by voluntary means, assisted by the State, opportunity may be offered to all to develop themselves.

That it is every man's business, and that every man should begin upon himself, will be generally agreed. But seeing also that every man profits, collectively as well as individually, a duty lies on the State as representing every man, to assist the upward movement by all practicable means. The ideal must be the fullest possible education for every one, but it should be added that this full education will take an infinite variety of shapes and paths. The prospect is not unhopeful for such an advance. The foundations have been laid, on the whole successfully, by a preliminary education up to fourteen or fifteen. We are now carefully considering the best means of adding to this a technical training which will fit in with the life-work of the industrialist, and it is clear that the progress of machinery will provide in the end far larger leisure. Here is the chance for further education, freely chosen and encouraged by public means. The country is humming with such agencies, the County Libraries, the Women's Institutes, the Rural Community Councils, the Adult Classes, Boy Scouts, and Girl Guides, to say nothing of the educational work connected with the churches. It would seem impossible to escape education, and many must long for a more restful and contemplative spirit which would feed in solitude on the beauties of the world and reap the harvest of a quiet mind.

Such an ideal does not differ fundamentally from the socialists': it differs in the choice of means. We shall make the happiest and most fruitful voyages not on uniform or universally prescribed lines, but choosing freely, rising to various heights and taking a wide survey. It is a flight in an aeroplane that we should aim at in the twentieth century rather than a journey by rail.

VIII

THE PRIVATE SCHOOL

THE argument for freedom and variety which ran through the last chapter leads naturally to the consideration of the other type of school which still plays so large a part in English life and is typically and historically English. If one speaks of 'private schools' in the broadest sense, as those which have arisen and are maintained without publicly voted moneys, one must include among them Eton as well as the dame's school at Little Slocombe. Many would think that thus understood they are still the most influential part of our system in spite of the steady growth and vast numerical preponderance of the State schools. About relative influences one cannot speak with certainty, and in this case even the exact number of schools or scholars is not known. It has been estimated that some four hundred thousand scholars are in attendance at the private schools about which the Board of Education lately issued a report, and some hundred thousand more are attributed to the 'public schools'. If we set this against the five or six million who are known to be in public secondary and elementary schools it seems small enough; but all would admit that relative importance cannot be reckoned on that scale, and that the 'private schools' (even without the great public schools to which in spirit they are allied) are doing work of high value and are strongly rooted in the national tradition. They are indeed one of freedom's most cherished strongholds in England and well demonstrate the power of survival and adaptation characteristic of healthy living things.

There are many groups among them. Perhaps the most clearly defined are the Girls' Boarding and Boys' Preparatory Schools. Then come a number of schools, mostly for

boarders, started by private initiative, and waiting in the chrysalis state for their full emancipation as 'public schools'. This happens when they have acquired sufficient numbers and prestige, with a body of respectable trustees or governors; though in many cases such a school is started by a committee of sympathizers, perhaps with some religious or educational gospel, hand-in-hand with a head master or mistress of their choice. The circumstances are infinitely varied, and in the same category of 'private schools' one must include at the other end of the worldly scale a very large number of small, socially select, private day-schools to be found in every big town. These were the subject of the recent inquiry.

One might well hesitate to deal cursorily with so large a theme, were it not that it illustrates so well the working of two or three motives in the life of a free, progressive, and once a wealthy country. The 'private school' is well known in literature. Dr. Blimber and Mr. Squeers, Miss Pinkerton's Academy, and Charlotte Brontë's school in *Villette* stand there for all time. Not very pleasing figures, it will be remarked. They did not appear to their creators the sources of inspiration for the great deeds of the nineteenth century. If Waterloo was 'won on the playing-fields of Eton', the compliment in literature is somewhat isolated, and the sad truth is that, looking back, most of those who have described their own school experience, or imagined that of others, have clothed it in sombre hues. In our own day the school fictionist is still apt to dip his pen in gall, but his subject is now found in rather higher circles. Most public schools can claim some 'merciless exposure' by a would-be popular writer. Why all so black? and, Is it all pure caricature? It would take us too far to discuss such questions fully, but one or two remarks may be relevant to the general story.

The nineteenth-century private school was not in the

main stream which was sweeping the nation on to a larger life. It was for the most part a pinchbeck imitation of the traditionalism which still reigned undisputed in the public schools. There were stray experiments on more modern lines, such as the schools of William Ellis in North London. But for the mass of the well-to-do the old routine was undisturbed. Pestalozzi and Froebel came first as a blessing to the poor, and science, manual training, and the like, made their way upwards from the social classes which did not desire or could not afford the public school. Hence the old private school, which represented the tradition at its worst, mostly deserved what it received in caricature.

Nowadays the tone is quite different. The horrors of Dotheboys Hall are a thing of the past, nor does one meet the egotistical domineering schoolmaster or the affected conventional schoolmistress in real life or in the school story. The critics are either concerned with the sufferings of the exceptionally sensitive child and the games and squabbles of the mass, or they have some educational ideal which the school described does not carry out. The satires in short have become sermons rather than pictures, and some of those who write them, like Mr. Bertrand Russell, try to make good by starting more ideal establishments of their own. Some indeed have been known to claim that a place of education should always be a human laboratory.

In a sense that is true, and it is well for education and the body politic as a whole that, in an age of change, independent schools should continue to exist where experiments may be tried without any sanction from the paternal State. In State schools also plenty of experiments are going on, but complete independence is a powerful stimulus, and one might fill many books with an account of the promising plans which have been first put into practice in private schools before finding their way into the more public arena. Miss Charlotte Mason was such a pioneer with her

Parents' National Educational Union. The Dalton Plan started in the same way in America. At Nääs in Sweden a famous Swede, Salomon, conducted for many years the experiment in educational handwork which led the way to its general introduction into English schools. Co-education too is a cause, supported strongly on moral grounds, which induced the foundation of several private schools, some of them for boarders, where the practice of training boys and girls together is tried for the general good. Another such school specializes in the 'heuristic' method; another in the teaching of history as the linking subject; another in art and the open air. Quite recently one saw in the papers an account of a new and excellent experiment of an international kind being tried at one of the latest budding 'public' schools. A party of nineteen German boys with a master were being installed—presumably for a term or so—in the English school while an equal party, also with a master, were going from England to the German school to take their place.

The check comes on all such experiments—where on the whole it is most wholesome that it should come—in the final preparation for life. 'Do they pass their examinations?', the anxious parent must ask, and on the examination question we shall have a word to say later on. But as to the value of experiment there can be no question. The gratitude of the nation is due to those teachers and parents who will face some risk and incur some expense in practising on a small scale ideas which could not well be introduced wholesale without experience.

There are other ends subserved by the private school. It is not amiss that a parent should sometimes wish a smaller circle and a quieter life for his child than is likely to be provided either in the public or the publicly managed school. No doubt there are still plenty of snobs, though not so many as in the days of the *Book of Snobs*, and one

often hears of the 'snobbishness' of parents in selecting a certain school for their children, though 'snobbishness' consists not in selection but in setting up a false claim to social superiority. As right selection of our friends, both in the flesh and in art and literature, is at the root of the finer qualities in character and mind, one must rather regret that so few parents have the means to select for their children. The world in future will need more and more all the safeguards we can set up against the mass-production of mankind. The private school is one of these, and some countries, certainly Denmark, have gone farther than we have in encouraging them. In Denmark, in approved cases, the State will actually assist a private individual in running a school, becoming a sort of sleeping partner in the concern. In India a year or two back Sir George Anderson, Director of Education for the Punjab, having satisfied himself of the special merit of the work of Mr. McKee at Moga, gave him carte blanche and the Government shouldered a large part of the cost. Here was a 'private school' working in the interests of a large and impoverished population.¹

The two main groups of private schools mentioned just now—the Girls' Boarding and Boys' Preparatory Schools—have both an historical and a social explanation. Except in the diminishing number of cases where tutors and governesses are provided at home, the girl has always been more generally sent to a boarding school than the boy. A public school for the boy if you can afford it, but, if not, the best day school available. For the girl, a careful training under approved moral influence, more seclusion from the rough and tumble of the streets, a closer approximation to a home, were always desired, and the best girls' day schools have still this strong rival pull against them. The boys'

¹ See *New Schools for Young India*, a fascinating and most encouraging book. (Milford, for the North Carolina Press.)

preparatory schools are a section of the public school world. They live to feed the senior institutions and in so far as they concentrate attention on the special needs of younger boys, they play a useful rôle. No doubt they suffer, like so much else in the educational system, from the pressure of external examination. The 'Common Entrance' largely prescribes their curriculum and is responsible for any pressure that they endure. If too much attention is given to Latin and Greek grammar and too little to science and the humanities, the fault must be laid at the doors of the whole traditional system and not of the individual school which exists to find its boys places, and if possible scholarships, at the Public Schools. As a limb in the whole organism it draws health and character from the rest.

Where, as in the best preparatory schools, provision of a 'kindergarten' kind is made for the natural tastes and activities of little boys, a pleasant and home-like spirit prevails, and, quite rightly, women fill a large place in the teaching and management, though as a rule girls are not taught in them with the boys. Nearly all these schools have now been inspected by the Board of Education, and where the Board has once been, it may by official rule go again to see what progress is being made.

Numerically, small private schools still form the bulk of those entitled to the name. They flourish especially in towns, and above all in towns which do not possess a recognized school of higher social and educational standing. In the small town of some 9,000 people where these words are being written, besides three large elementary schools, one of which was intended to provide for children of all social classes, there have arisen in ten or twelve years a boys' preparatory school and three or four private schools all making some special appeal. They presumably afford a livelihood to their numerous body of teachers and

proprietors and certainly demonstrate the unabated vitality and love of freedom in the British middle classes.

On these private schools a committee of the Board of Education reported this year, and the report should allay any fears that such schools are a danger to the general level of national education. They are said to be mostly above serious reproach and many of them excellent. It is recommended that they should accept such an inspection as would secure a minimum standard of educational efficiency as well as guarantee their sanitary condition. This inspection, as it has already been conducted in nearly all the public and preparatory schools, would be an actual safeguard of freedom and a source of reasonable improvements in future. A step in the same direction was taken some years since in the institution of a register of qualified teachers which has been maintained and enlarged ever since. But this is of course inaccessible and largely unintelligible to many parents, and it would not seem to be stretching the arm of the State too far for it to reach in a friendly way all places where education is offered at least comparable to that which is required in a recognized elementary school. If such places are inefficient, the onus would then rest on the parent, who is required to see that his child is satisfactorily taught. If they are good, the stamp of an expert report would extend the sphere of their usefulness.

On such lines we seem to be attaining in education, as in so many other things, that compromise between pure individualism and State direction which suits the national temper. The arguments against either extreme are impregnable. It would be intolerable for the State to control the schools in the sense of prescribing who shall teach or what they shall say. Nor do we wish, as some nations do, that all our children should be educated in the same sort of school. This leaves the field open for the private school

which is only hampered by the expense of running it. But on the other hand there seems no reason why the State should not satisfy itself and the parents that the teaching in all schools is competent to a point and the sanitation good. This involves no interference with the due freedom of the citizen. The unqualified practitioner is not protected by law in victimizing our bodies; why should it be otherwise with our minds?

IX

THE PUBLIC SCHOOL TRADITION

THE last chapter brought us to the threshold of the greatest and most famous private schools, called by a favourite national idiom 'Public'. There can be no attempt here to describe the public schools of England, still less to write their history. It has been done in libraries of interesting books, and every self-respecting school makes it a pious duty to commemorate its own. But it may be possible to indicate one or two points in their character and doings which have made them strong and typical of the nation. Later chapters will contain some remarks about what goes on within their walls; here we will only consider for a moment how they have come to be and how they reflect the history of England.

They are in the first place the schools of a rich and personally independent people. Their development has kept pace with the growth of national prosperity. Some of them, indeed, love to trace their origin back to a medieval founder, in one case to Alcuin, born at York, the learned helper of Charlemagne. But their true foundation and the bulk of their estate date from the Renaissance, when England began to be a prosperous trading country, taking her own way in the world. Winchester, Eton, and Harrow, the three most famous, came in that order from the fourteenth, fifteenth, and sixteenth centuries. All were endowed with landed property, which, with the growth of population and the enrichment of the country, became more valuable. Some received benefits from confiscated ecclesiastical land. They grew in number and wealth as the nation grew, and in the nineteenth century, at the height of our comparative wealth in the world, the public schools also reached the zenith of their prosperity. Many modern public schools

were then founded, when the public school spirit and tradition had become established. Clifton, Malvern, Wellington, Mill Hill, come readily to mind as examples of different types.

To-day it seems that England's pre-eminence in wealth and prosperity is at an end, and people often predict a corresponding decay in the public schools. But the prophecy is a little hasty. It may be that the pre-eminence of our wealth is at an end; other nations, East as well as West, have learnt our manufacturing technique and are likely to better their teaching. There is a republic instead of an empire growing up in industry, and in the same way among the schools a multitude of competitors, having caught the spirit of the pioneers, is now disputing their pre-eminence. Meanwhile national impoverishment imposes a more modest standard of living on all alike. But though we have become poorer and competing schools have increased, fresh means are being constantly devised to keep alive institutions which are identified with the national life. The severest critic will not deny that the public schools belong to this class, and a hundred thousand boys are still being taught in them.

We noticed as one of their national traits, their independence. There is nothing of which the public school is more tenacious. It acknowledges control from no other body than its own legally constituted governors. No Board of Education would dream of dictating what should be taught, or how anything should be taught, in a public school. Even a modest circular, issued a few years back, making suggestions for the better teaching of hygiene, was greeted with a storm because it seemed to infringe this sacred right. Henry VI founded Eton, and his successors are respectfully and affectionately greeted as neighbours and visitors. The Fourth of June, the annual festival there, was the birthday of George III, and was so chosen because

of the special friendliness of that king for the school. But in this case and all others the link is one freely accepted, a tie of affection and not of command. Parliament alone can command, as it did in 1868-9 by the Public and Endowed Schools Commissions and the Acts which followed.

The independence of the older and richer schools is in sharp contrast with the control exercised in all schools, secondary or elementary, erected or maintained by public funds. To a foreigner these would seem to be the public schools, and public they are in the sense that the public may use them either freely or by payment of a comparatively small fee, and that the public governs them through its elected county or borough councils. Wise policy would approximate them as far as possible to the older and independent schools in the freedom and responsibility of their teachers, for state or community influence is besieging all scholars and all schools on every side, by the examination system, by optional inspection, by pensions for teachers, &c. But freedom may broaden down from class to class as well as from precedent to precedent, and this should be the English idea. Even as things now are, the whole body of teachers in England may be more confident in their work and in their social position because of the independence always accorded to the senior branch of the profession.

All freedom, however, must be judged by its fruits: mere independence of external control is valueless in itself and may be a curse. What are the positive elements in the public school tradition?

There are two or three points about it which stand out so clearly that other schools both at home and abroad have been for some time influenced by them, reproducing the same features in varying conditions. At home this is of course easier, because the fundamentals are essentially

English, ingrained in the national character rather than the special product of the public school system. The first and most obvious is the corporate sense which imposes on every one an obligation and inspires a pride, quite apart from the advantages or the distinctions gained by the individual himself. He belongs to an organization, or an entity, which existed before him—the longer the better—and will outlast him. What he may do, if glorious, will add to its lustre, if shameful, is a blot upon the escutcheon. It is a training in patriotism in miniature and partly accounts for the fact that the public school record contains a larger proportion of men distinguished in public service—the state, the army, and administration—than of those who do more individual work in the arts or philosophy.

This corporate sense is strengthened by throwing as much as possible of the work of discipline and of maintaining the school activities on the boys themselves. The two features are indeed part of the same thing; the individual would not feel his membership of the whole unless he had a rôle to play, and the more responsible that rôle, the more conscious and proud he is of his membership. This aspect of public school life was emphasized and made general by Dr. Arnold's famous head mastership at Rugby, but it is bound up with the very life of the institution and is naturally most developed in the boarding school where boys and masters are constantly together. For the masters, with this spirit and in these conditions, become intimate and friendly with their pupils in a way that is peculiar to English colleges and schools. The master from this point of view is a fellow member of the commonwealth, and shares, but does not attempt to dominate, the school activities—games, societies, missions, O.T.C., and the like. Games especially tend to promote this side of public school life, for in them the young must always take a larger part than their ageing masters. This is clear enough, but it is

worth a moment's thought when we are inclined to deplore, quite naturally, the excessive prominence of the sporting spirit. We are speaking of the 'public school tradition' and tradition implies some continuity in time. This is a conservative element in the system. If we are proud of the organization of which we are members, we shall wish to find as much as possible in its history to justify our pride. The longer the history, the more we shall prize it, sometimes even its less praiseworthy features. Such is the mingling of good and bad common to all human things, prominent, as we have just seen, in the cult of games. As traditional things, our oldest schools can claim a more venerable antiquity than any other institutions. No university can look back to Alcuin. They have even more continuity of educational work than the universities. Except in a few derelict schools in the eighteenth and early nineteenth centuries, there was always some teaching going on. The master stuck to his desk and continued the drill which he thought his duty. Adam Smith, who spent seven years in Oxford at her worst, brings out this point in a passage in the *Wealth of Nations*. 'In England', he says, 'the public schools are much less corrupted than the universities. In the schools the youths are taught, or at least may be taught, Latin and Greek. That is everything which the masters pretend to teach, or which it is expected they should teach. In the universities, the youth neither are taught nor can always find the means of being taught, the sciences which it is the business of these incorporated bodies to teach.' So when we find, as we often do, the universities still looking to the schools for guidance, there is something in the tradition of a duty steadily performed to justify the attitude.

It would of course be absurd to identify the public school tradition with the spirit of England as a whole. That is a greater thing: it embraces Bunyan the tinker,

Defoe the nonconformist, Swift, and Goldsmith; Faraday, the blacksmith's son, William Blake, the poor hosier's, Herbert Spencer, the home-taught son of a schoolmaster, John Ruskin, the wine merchant's. These and a host of others all developed their powers outside the system. It has often been attacked for its repression of originality; a charge which, when one surveys this host outside, seems to have some force. Yet the persistence of the tradition, and its imitation by others, is strong proof of its value and of its special congeniality to the English temper. At the present time, when depression makes the alarmist predict the decay of public schools, they are in their broader characteristics more widely diffused than ever before. We have seen how the new boarding-school takes as its model the established public school; and even in the day-schools, where circumstances are far more difficult, efforts are constantly made to reproduce some of the most admired features of the boarding schools. Boys, and girls too, are classified into 'Houses' as if they were living in them, and 'inter-House' competitions both for play and work find a place in the system of most large modern schools. A corporate spirit; competition and self-government, subject to a general patriotism; good fellowship with the teachers; pride in the doings and history of the school; here are things of the first value in the training of a citizen, all drawn from the tradition of the public schools.

As education is an art, the supreme art indeed of human beings acting on one another as material, we may find an analogy to the position of the public school system in the development of the pictorial arts in England. If you visit the Diploma Gallery at Burlington House, you can trace a continuous descent of influence and style from Sir Joshua Reynolds, through Constable and the Pre-Raphaelites, down to Stanhope Forbes and Sunderland Taylor in our own times. There is the main stream and it is the most

characteristically English; but it has often been departed from, often fiercely assailed. Our own day, in education as in art, is the most critical and divergent that the world has ever seen, and yet, perhaps most of all in England, the main currents have kept their course.

In spite of the revolution which has taken place in the curriculum in the present century—due chiefly to the invasion of science—the public school spirit, as we have described it, has not only held its ground but made wider conquests.¹ This widening has taken place in two directions. First, by influencing in many ways the schools outside the public school circle; secondly, and ultimately with more profound result, by widening its own basis. Both in respect of the matter of education and of the class of scholars, a real work of reconciliation and synthesis has been attempted in recent years. With regard to the matters taught, the typical public school, unlike most foreign schools and many of the lower grade in our own system, still stands by the old ideal of a general liberal education. It tries to hold together the diverse threads which have been spun out of the stuff of human knowledge, and it has to do this in face of the urgent modern claim that education should be before all things practical, and turn out men fit to deal with a changing and exacting world. Of the material used, science and history are now taught in all the schools with increasing vitality, while a determined effort is being made to keep alive the ancient classics as the leading thread in the European tradition. When one adds to this the clamorous and irresistible demand for modern languages—not only the French which every educated person should be able to speak, and the German which no serious student can be without, but also Spanish, and if possible Italian, with a place for Russian—it is not surprising that the heads of these universal

¹ See *Life and the Public Schools*, Dr. David. Maclehose.

emporiums find the position exacting. When well discharged, as it so often is, the work is beyond compare the most important for building up and holding together the mind of the nation.

The more prominent an institution is, the more liable to attract the lightning of its critics. This has been so very markedly with the public schools in recent years, and no friend of a free country would wish it otherwise. Next to the tyranny of an official system, the worst evil education could suffer would be an orthodoxy so firmly established that no one could be found to dispute it. This is so little the case at the present day, and the contrary evils of confusion of thought and futility of effort are so much more in evidence, that the sober critic, while welcoming every solid and honest experiment, is swung round to sympathy with those who are labouring to keep alive the old, to adapt and not destroy.

We are little likely in these days to commit again the mistakes of a Ruskin criticizing a Whistler. The canons of art, whether in education or elsewhere, are now so much relaxed and so much in dispute that it often seems sufficient that the individual artist or the individual child should satisfy himself. Against such extremes of individualist divergence, the public school tradition is a useful safeguard. That it has positive faults and still more deficiencies, is known to all men; we shall allude to some of these on the intellectual side later on. But before criticism can be useful, it must appreciate; and no one can appreciate either the school system of England generally, or its public life, without recognizing the profound influence of its oldest schools. In the education of a new world-order, this influence is not dying out. It persists, often transformed, in larger spheres.

X

CLASS AND MERIT

THOSE who have followed the previous sketch of private and public schools with an eye fixed, as it should be, on the education of the whole nation, will be ready to ask some searching questions. The public school system has been described, they will say, as the central and most representative part of English education. As it grew up with the nation and flourished on the nation's wealth, ought it not to contain representatives of all classes, and be open in some way to them all? What provisions have been made for thus opening it, or for enabling scholars to pass from other schools to these, if indeed they offer the best or most English type of education?

The answer to such questions can be but tentative and fragmentary at the best. Here and there attempts have been made at a practical solution of the difficulty. One small school was started by private benevolence in Gloucestershire to provide a public school education for ex-elementary boy scholars, and one may find in most of the public schools some scholars who have made their way into them by means of public assistance. But this is exceptional, and it is best to face at once the broad issue that the public schools rest in the main on a class basis. A parent will, if he can afford it, in nine cases out of ten, choose for his child, whether boy or girl, the best school that he can hear of, and the choice will be determined more largely by social than by purely educational considerations. He or some member of his family is connected with a certain school, or he knows that the school is frequented by people whom he would like his children to meet. Coupled with this, but often second to it in his mind, is the inquiry whether the given school is at the

present time doing well, turning out its scholars with a fairly adequate preparation for life. As therefore comparatively few people can afford the expense which a public school involves, it is true that children at starting have no absolute justice in the matter of education. So far as the more expensive system is better, the children of the poor are by reason of their poverty denied it. But it cannot be said that on the whole the moral sense of the nation is revolted by this. The richer man is judged by most of us on more general lines. What kind of a life does he lead? Does he spend his money on the whole in a socially useful way? And as to education, if he is making a sacrifice to give his children a really better thing, it would be counted to him for righteousness, though of the reality of the return for his money, there may be, as we shall see, some doubt. So far as the school system is bound up with the whole system of classes and wealth, and could only be flattened out by a revolution, the average man would prefer to leave it as it is, or allow it to be changed by slow degrees.

Meanwhile the alternative system which has been growing up offers interesting comparisons and sometimes surprising results which do not escape the popular press. Boys from the public primary schools, advancing by scholarships to the universities, are often found to gain distinctions over the heads of their more fortunate competitors, and as to the general preparation in infant and lower classes, it is a frequent comment that many children who do not go, would be better trained if they spent two or three years in a good public infant school.

There is evidently a humorous side to the case, and it would only be possible in a society compounded like England of traditional prejudices, happily diminishing, some intellectual interest in education, happily on the increase, very heavy taxation for social purposes, and a widespread good temper. What concerns us most here

is to discover wherein lies the superiority, if superiority there be, of the much more expensive boarding schools. How far and in what manner is provision made for passing from one type of school to the other? Can one speak of a common spirit pervading the whole? Is this growing, and can it be increased?

So far as the youngest children are concerned, it is probably true that a good public infant school yields nothing to a private kindergarten either in its general methods or in its educational results. The two points on which a parent may receive some value for his money by sending a child to the private establishment are, first, that the classes will be smaller, allowing the individual to receive more attention, second, that the children will come from what are called 'better homes', i.e. places where they are more carefully tended, and taught to speak in a more refined way. For the rest, kindergarten ideas are the same for all classes, and, as we have seen, it was for and among the poor that the wise methods of the kindergarten were first developed. The technique spread from below upwards, but it is still more generally employed in the primary school sphere. The better-to-do are more conservative, in education as in other things.

It is also true that for a year or two above the kindergarten stage the child is often taught better in a public elementary than in a paying private establishment, however graded. The business of grinding at the rudiments which must be done somewhere and at some time, is done more thoroughly there by teachers whose principal work it is and who have had a long tradition and practice in doing it. The change comes later, and it is not altogether, or even mainly, the difference of learning more things. No doubt more things are taught at any school that can be called secondary, but the thing chiefly prized at the higher schools of which we are thinking, is a higher degree of

general cultivation, of all-round capacity, an element difficult to define, but easy to discern in those who possess it. To take one point only, but a capital one: the schools of highest standing take pains to secure on their staff, and generally succeed in securing, the best men of their day who are taking up teaching. The salaries offered are higher, the prospects are attractive, and on the work of these men, very often lifelong, the connexions and reputation of the school are largely built.

One result of this system, and the general preference for independence of position in England, is that the head masters of the leading public schools carry far more weight than any professor or administrator of education who gives his whole time to studying the problems. The great head master is the practical man. He has been freely chosen to be the head of a famous institution. If he increases its strength, he has behind him all the patriotism and gratitude of the community past and present. If he is weak, the organism will survive him and make good the deficiency.

One has noticed recently, as the nation goes up in the educational scale, that schools are becoming proud of strictly educational features. The music is especially good in one place; they have a fine art-room in another. In a third the old boys have subscribed to put up new 'labs' which are said to be 'some of the best in the country'. But above it all stands the School Itself, an entity to which it is a privilege to belong, and of which the head master, if worthy, is the living mouthpiece, the king of the little nation.

It is always to some such ideal of his school, and not to the memory of the particular things that he learnt there, that the pride and affection of the Englishman will be found to turn. And the girls' schools in recent years have been developing on the same lines with vigour. It

is a healthy thing on the whole, like the development of nations in the larger world. The more entities above us to which we may vow service, the better, if only we can bring ourselves to allow an equal freedom of devotion to all the others. Unfortunately, in school politics as in the world, there is sometimes a tendency to look down on those who have not the supreme privilege of belonging to 'us', an assumption that all the best people belong to So-and-So or at least to a coterie of This-and-That.

Such are the qualities, for good or bad, which belong to the schools which stand socially at the head of the hierarchy of schools in England, and we shall conclude, with all the friends of England, that the good largely prevails. The best proof of this in England itself is that the younger schools tend to model themselves on the older, to excite in their scholars a similar devotion. As the varied panorama unrolls itself before us—the ancient schools half-modernized, the modern schools imbibing the spirit of the old, the schools entirely for boarders and therefore expensive, the schools half-boarding and half-day, the municipal secondary, cultivating a corporate pride and an increasing share of university scholarships, the uprising central schools which will soon have to be admitted to secondary rank—it is clear that no simple plan of a uniform ladder of education would fit the case. The connecting threads are much more varied than that, but they are real and growing in strength. One of them is the presence and the reporting by a common body of government inspectors, who continually visit a wider range of schools. This is a service which the State is able to render, without compulsion to those whom it inspects, and with the advantage of the most highly trained experience in the country. Most of the public and preparatory schools have now availed themselves of it, and a register is kept of would-be higher schools which have been examined and found efficient. Another

link is the taking by scholars in all kinds of higher schools of the same School Certificate Examinations. Nearly all of them now do so and the results will be discussed in the next chapter. A third link is the passing of a certain number of scholars from one type of school to another by means of scholarships. This takes place mainly from the elementary to the publicly managed secondary schools and from the higher schools generally to the universities.

There are of course many more 'minor' than 'major' scholarships, enabling a far larger proportion of the elementary school population to go on to secondary schools, than that which proceeds from the secondary schools to the universities. But on the other hand, as the numbers in the universities are far smaller—something over 40,000—the effect of the introduction of the scholarship element into them has been greater. Before the recent grant of government scholarships, there was a large number of older scholarships and bursaries at the universities, so that the total is now very large; and the character of the universities has been profoundly changed. The social change is most marked in Oxford and Cambridge, which were for centuries more identified with the public schools than they are now. The democracy of merit—i.e. of merit as tested by written examination—has invaded university territory in force, while the public boarding school remains comparatively unaffected.

The reason is plain. Public assistance—in the form of minor scholarships, free places, and the like—available for scholars proceeding from elementary to secondary schools does not contemplate boarding schools; that would be too expensive, even if the schools were willing to receive the candidates. But the major scholarships, which are often held together with one of the older scholarships at the university, are calculated on the basis of enabling the successful candidate to reside. Hence the connexion of

the universities with the modern secondary schools has been strengthened, while that with the public schools has to some degree been lessened and is certainly much less exclusive.

One school of philosophers has described the modern world as being mainly characterized by the substitution of merit for class. Class in its most rigid shape is hereditary caste; every one remains in the social class of his father and, in the extreme form of the system, follows the same occupation for life. In theory we now entirely reject this practice and hold that every one should do the work for which he is most fitted and that every post should be open to the man who can best fill it whatever his parentage. It is extraordinarily interesting, and of high public moment, to study in practice the steps taken to realize 'la carrière ouverte aux talents'. In England the passage from school to school and school to college and college to the highest posts in business, politics, or administration, is much less straightforward than it is generally in other modernized countries. It is less straightforward with us, not because we do not honestly believe in the reign of merit, but because we have more traditional institutions on the road, more hostels and recruiting places for those on the march where they may be refreshed and pick up hints and encouragement from fellow travellers. There is, all through, plenty of fellowship but less close following of the chartered path.

But if it be asked whether the course is plain for a child of the poorest classes to advance by the educational ladder to high posts and emoluments, and whether many take it, the answer is certainly in the negative. It can be done and some do it, but it is difficult and exceptional. As we shall see in the next chapter, the system of examinations and scholarships is not well adapted for the purpose, and in practice other things count for more in the final result than

success in answering questions on paper at the age of sixteen. The situation is a constantly changing one, and under the closest scrutiny by those who use it. The main features which stand out at the present moment seem to be these: First, that there is a genuine desire that true talent should have full scope both in its own interest and in that of the whole community. Second, that the well established system of boarding schools, with its great merits and cherished traditions, acts and will continue to act as an effective barrier to the complete mixing of classes in schools, a process which goes much farther in other countries than with us. Third, that the only sound way of raising the general intellectual level of the nation is to develop the alternative system of higher day schools, importing into them such good features as are applicable from the older system. Fourth, that the system of examinations now in vogue cannot act as a general solvent of class divisions in education and is by no means completely effective in drawing out the real powers of those to whom it is applied. But this is the subject of another chapter.

EXAMINATIONS

NO attempt can be made here to survey the whole field of educational examinations in any detail: a larger book than this would be needed merely to summarize them. But clearly they cannot be passed over in silence. It often seems, in conversation with pupils and teachers in a certain class of school, to be the one absorbing subject of their thought, and the last chapter brought us to the threshold of the topic so far as it relates to the passage of scholars from one type of school to another. Perhaps it might serve to put the matter in its right perspective, and introduce the few general remarks which are alone possible, if we revert for a moment to the suggested method of our second chapter and interrogate ourselves. What does self-examination reveal as to the function and effects of educational examinations in our youth?

All readers of this book will in their youth have passed—or attempted to pass—through certain examinations. How do they now appear? What value are we now prepared to allow to them in the whole process of our education?

In the first place it would probably be agreed that they seem to the mature judgement incomparably less vivid and important than they were at the time, or than most other incidents of school and college. The friends we made or the books we read stand out more clearly; some striking personality among our teachers, or, if examinations call up any memory at all, it is rather of our special luck, or more often ill luck, at one of them. Another impression would probably be general, and is certainly true for one person now making the inquiry. School examinations seem to have counted for less and the memory of them is far less vivid than that of examinations taken later, either at the

university or for professional purposes. This is not because they were earlier in date; one remembers the masters and boys as well, often better than one's companions at the next stage. It is because at the later period the examinations were dealing with something nearer to our life-work. If we were taking up medicine, it was essential to know anatomy; the need of examination for that purpose was unquestionable and the results permanent and enforced by practice. But what we had to get up for 'that school examination', however well chosen and necessary for a general education, has largely passed into the realm of the unconscious. One authentic examinee, for instance, was heard to boast within five years of taking honours in classics at the School Certificate Examination, that he had forgotten his Greek even to the alphabet.

Yet our candid self-examiner would admit something on the other side. It made me work a bit, he might say. It made me measure myself against the other fellows on another field besides football. Moreover, as one is always so ready to blame one's educators for some essential thing that they omitted to teach, it is right to remember that the examination was the necessary means of impressing some of the commonplaces of knowledge on our minds which we should otherwise have omitted. And one must add to this that a number of examining bodies, such as the City and Guilds of London Institute, the Royal Society of Arts, and others, do succeed in stimulating interest and industry in studies of practical use to the community which would otherwise be neglected or pursued in a much more desultory fashion.

However, we were considering not so much the use of examinations generally, as school examinations in particular and the impression left by them in later life. A true summary of this would probably be that while professional and technical examinations established themselves per-

manently as part of one's trained and active mind, the earlier examinations took their place as part of the school discipline. The former class belong to one's self afterwards; the latter to the machine through which one had passed and had left behind for ever.

Such middle-age reflections might need some revision, but would not be substantially altered by the changes of the present century. The machine has been extended and its wheels oiled and geared up to a marvellous degree of working efficiency, but it is a machine still. It does not belong to the moving spirit of education, that part of it which makes us act and makes us happy in after life. Now it is this divorce, and the tyranny of the machine, which have caused the present outcry from both teachers and taught, and especially from those in the newer type of secondary school where the pressure is mostly felt. Before we can judge of these evils, or consider their remedy, we must briefly review what has taken place in the last forty years.

Before the end of last century a rigid government annual examination was in force in elementary schools, as we saw in Chapter V. At the same time the higher schools, receiving no grants or supervision from the State, invited such inspection and external examinations as they chose. These examinations were quite unco-ordinated and conducted for the most part by delegations appointed by the universities. The principal were, the Local Examinations of Oxford and Cambridge, the examinations of the Joint Board of Oxford and Cambridge, and the all-pervading London Matriculation. The last named, being the agency of a university which for many years only existed on examinations, has done much to stereotype the system as we now have it.

But since those days important changes have taken place. The annual examination in elementary schools has

disappeared and they are now the freest part of the whole system. Above them, as we have seen, a new set of secondary schools has come into existence, mainly fed by ex-elementary scholars. Here a much more advanced and skilfully arranged system of examinations has been imposed. The upward course of the elementary scholar is now, in its main stages, as follows. He spends the first five or six years of his school life taught and examined only by his teachers. Then, somewhere in his eleventh year, if he is a promising boy, he is admitted to a minor scholarship examination which will take him, if successful, to the secondary school. This is conducted in varying ways by the Local Education Authorities, but the typical method is: First, a general sorting out by the teachers themselves under the direction of the local officials; Second, a final test by some specially appointed experts who take the papers of the best from the preliminary test and on these award the scholarships or free places at the higher schools. Sometimes a personal interview is added or allowance made for work done at school. As the examination is of a very simple kind, dealing as a rule only with the writing of English and arithmetic, it does not constrict the child's programme at school and is rather a wholesome stimulus to effort. It can easily be widened out by various devices—intelligence tests, practical work, and the like—to cover the 'whole man' of ten years old.

So far the progress of the young scholar has been a free and happy one, certainly not embittered by any fear of examinations. In fact, owing to this freedom, some of the central schools which still rank officially as elementary, have been able to shoot ahead and do work of surprising merit on unconventional lines. It is in the secondary schools, and especially in the newer ones instituted by the authorities, that the examinations cast the longest shadows. Into these schools, by the joint action of the universities

and the Board of Education, a well-thought-out system of examinations has been introduced which is the dominating factor in their curriculum and work. The new School Certificate Examination is the chief instrument, and dominates the rising scholar just in so far as he is anxious either to get a good job at sixteen or a senior scholarship at the university. Its system of 'Credits' is cunningly devised to appeal either to the universities or higher scholarship authorities or to the employers dispensing the jobs or to the guardians of various professions. Hence, as every boy or girl in these hard times wants either a scholarship or a job, the School Certificate Examination catches them all.

The result of this clever planning has been to endow the schools with a system, efficient in its working, but too often obstructive to the very purposes which it was designed to assist. With the best intentions in the world, by trying to make one thing, which might be useful in itself, serve too many purposes and work with too much universality, we have gone far to sterilize the hopeful growth which was taking place. The business man or manager of a company, wanting a clerk, looks at the results of the certificate examination and saves himself the trouble of choice by taking those who have the largest number of 'Credits' to their name. The university makes use of the same tests as exempting from some of their examinations, and the qualities required for the two careers can hardly be the same. The solution, as we shall indicate in a moment, is to make the examination relative to the school-work done and leave professions, businesses, and universities to exercise their own judgement afterwards.

Those who remain at the secondary school after this general test often take a Higher Certificate Examination of a more specialized character. This is framed on more strictly academic lines, with the view of giving a preliminary survey of the course of study likely to be taken

up at the university. The alliance with the university is here more natural. It may be a course of language plus history, or science plus mathematics, whereas at the previous test—for the School Certificate—a more or less all-round training has been assumed, some mathematics, some languages, and some history or geography, and science.

We might follow the stages through the university upwards, but that belongs more properly to another chapter. It is a similar story and suggests at once a general reflection on the whole. The rising youth has been exhorted for generations to 'get his foot upon the ladder': we have now arranged it that, in education at least, every rung in the ladder is a test cunningly devised by some one he has never seen, the workings of whose mind are his most anxious study for the most fruitful years of his life, and if he solves the racking problems and arrives at last at the top, he finds too often that his energy and taste have been exhausted in the process and he lies down to rest in an educational sleep.

But such general reflections, though they may stir the conscience, are not constructively helpful. It is better to take one case and examine it in the light of the common-sense principles on which all concerned might be agreed. We may find that some of the difficulties which appear most insuperable have been introduced by ourselves in the course of making the machine more theoretically perfect and complete. The case here is the testing of a scholar's work who has been through a secondary or higher school and is now ready, either to take up some university study or begin earning a livelihood in business or industry. As it is proposed to raise the age of necessary attendance at school to fifteen, the number of those fit for such a test will steadily increase.

Now in the first place it is clear that the purpose here is

not competition. There is plenty of room for healthy competition elsewhere in education. Here what we need to know is that the scholar has passed faithfully and profitably through a well-devised school course. The course and the testing of it should be comprehensive, taking account of the scholar's capacity and achievements on all sides of his school work. But it should not be competitive and it should be relative to the school as well as to the individual scholar. It should not only allow but encourage a wide variety of methods, subject to solid work being done. As to the possible limits of such variation and the quality of the work, there should not be much difficulty in securing agreement on any small panel of educated and experienced people.

If these general principles are allowed, it will be seen that the system in practice offends quite gratuitously against them in three or four capital points. In the first place, by allowing the universities such large control we have ensured that the tests applied shall be those which approve themselves to experts in the different 'subjects'. Each man believes whole-heartedly in his own subject, and does his best to 'keep up the standard', which means in practice setting more and more searching questions and avoiding those which involve only the knowledge which any one might be expected to have. They inevitably approximate to the point of view of the universities to which only a small proportion of the scholars are going.

In the second place, the examiners under the present system have no knowledge of those examined and in many cases no experience of teaching the young at all. The work of testing should be mainly in the hands of practical teachers, with suitable assessors, and those who have had experience of the examinees should be allowed a voice in the decision about them.

In the third place, any system geared up as this is to so

many other systems outside the school itself, is bound to become oppressive especially to the smallest and weakest part. This item, the last introduced between the great revolving wheels, is the ex-elementary scholar for whose benefit the whole was devised. Devised for him, it is likely to turn him into the worst-worn cog in the machine.

It would not be difficult to devise another plan, a panel for inspection and examination on which many lines of life would be represented. There would of course be many teachers or ex-teachers on such a body, with representatives both of the universities and the educational authorities. Seeing that but a small minority of the scholars go on to the universities, there is every reason for including on such a panel practical men of various kinds and representatives of the professions. There is far too little community between the schools and those who supply them either with children or money, and the present close linking with the universities accentuates the academic spirit that haunts the work of all who operate mainly through books. One might well lessen this without lessening the respect due to all places of learning.

The question is a practical one on which some action is inevitable, and it will become more serious with the spread of secondary education and the rise of the central schools. Many of these are already taking 'locals' and asking for more. It is a strange paradox, the craving for examinations and certificates in so many quarters, while those under the harrow sigh for release. Reform must come, and true reform will involve more power to the teachers, more contact with the educated public, less stress on paper examinations, more scope for variety and all-round training.

It was good to see the other day that an expert committee of psychologists and those experienced in education had been appointed to study and report on the working of the

examination system. Italy is said to be doing the thing better than other countries, and the new committee might well tell us if this is so. It would be worth finding out in detail, remembering always that examinations, if well conducted, are an excellent servant; but, however well conducted, a bad master. For guiding principles in education we must seek elsewhere.

THE GENERAL AIM

WE saw reason to doubt in the last chapter whether the system of examinations as now applied in higher schools was all that we should wish it to be as a test and stimulus to the general education of the scholars. That is an almost foregone conclusion for those who have given careful and independent attention to the subject. We shall see in a moment some of the alternatives suggested. But seeing that the matter is so difficult and much debated in detail, it would not be amiss at this point to retrace one's steps, and ask what in a general way we are aiming at in these schools, and how the results of the work might present themselves for testing if we are fortunate enough to hit on a more satisfactory way of doing it. Life no doubt is the supreme test, but we are naturally and rightly anxious to anticipate, if we can, the verdict of that great judge, and see that the young as they emerge from the preparation which we impose upon them, are getting stronger for that which is to follow.

The general aim we will reserve for the main part of this chapter; but the different aspects of the intellectual growth which we hope to secure in the scholars are not so difficult to define and we will begin with them. There seem to be at least three which may be clearly distinguished. The first is the most obvious one, the acquisition of knowledge. It occurs in varying degrees in all parts of the school curriculum. In language, mathematics, geography, history, and science we are learning things that we did not know before, and the change is so marked and easily testable that the art of the examiner has been exercised almost exclusively upon it. Hence the reformer of examinations concentrates his attack on this practice and

points out that if we examine merely for knowledge, we put a premium on cramming which is in fact the natural morbid concomitant of the examination system. It is not knowledge, says he, that we need in the first place: that will come naturally by the way as we go on living and thinking. The supreme thing is the power of thought, the ability to turn the mind on to a new problem, survey it as a whole, compare the new features with what we know, and draw a right conclusion. Here he points out to us the second aspect in which we should certainly wish the young in schools to be trained and to go out stronger than they came in. To test this side of the educating process the reformers have introduced the intelligence test, applied mostly to the young but sometimes, as in certain American colleges and the whole American army in the war, to adults of any age. It contains undoubtedly an important truth, recognized already by our grandfathers in their riders to the Euclid paper and often to our undoing in almost all the algebra. Now the idea is to apply the same problem-method to everything, history and social questions as well as the Latin Unseen and the riders. It will be found interestingly developed in *The Art of Thought*, by the late Professor Graham Wallas. He had to deal largely with Indian and other foreign students and found the extreme value of making them express their thought clearly in language which they understood. It is almost a commonplace to add that a similar process is equally necessary with the English scholar at every stage and that the work of the teacher is often nullified by superficial or merely verbal acquiescence in the new fact or thought presented. The problem-method, or any plan which will test and secure the clear visualizing of what we are talking about, and the drawing of true inferences from new data in the light of previous knowledge, is to be warmly welcomed. It calls attention to the second main aspect of the mental

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growth which we wish to induce in the scholars. But just as it does not supersede the necessity of imparting knowledge, so it hardly touches on the third aspect which is the most neglected by orthodox examiners and reformers alike. This is the growth of mental appreciation, soundness of taste and judgement as a whole. It is the aspect most difficult either to define or to examine, and yet perhaps for the future happiness of the individual and the general stability and contentedness of society the most important. Shall we say then Knowledge, Mental Power, and Appreciation of Values, as the three most desirable things on the intellectual side without separating them too sharply or attempting to assign any order of importance?

The last point mentioned, the appreciation of values, the attainment of a sound judgement in matters of taste as well as conduct and opinion, is clearly that in which maturity and the teachings of life are most needed, and in an examination at the age of sixteen the most difficult to apply. Yet the matter cannot be dismissed from the purview of school, and it may reasonably be thought that the general callousness, or perversion, of multitudes of people in this respect is largely due to the earlier apathy of the schools. The materials for fortifying our judgement come later in life, but the early years are the most susceptible to good impressions. Broadly speaking, one must sorrowfully admit that the possibilities of such influence, especially in the matter of beauty, have not been realized by those who might have used it. An awakening of interest is now visible, but the field lies for the most part outside those aspects of school work that may be tested by examinations such as we have in force.

We are driven back therefore to first principles. We cannot frame our ideal school curriculum in accordance with what the examiner will look for in the examinee, when he is prepared to leave school, say in his sixteenth

year. We may hope that the examiner's eyes will be open more and more to the best that we have done, but his judgement must follow on our action, and our action in dealing with the scholar must arise from motives valid in themselves and not dependent on his judgement. Where then are we to find these? Looking back to the second chapter of this book—the only place so far where first principles have been touched on—it will be seen that in speaking of self-education, it was defined quite briefly as the training of all a man's powers to their highest pitch. This indeed, duly filled out and harmonized by the conception of belonging to others, of carrying out this self-development in the interests of the whole, may serve very well as a guide in the personal quest for complete education. But can we think of it as a practical maxim for framing a school curriculum? How could it be applied by the community at large, who have now assumed the task, in dealing with masses of their junior members, or by any teachers or managers of a school who have numerous groups on their hands at once? One may hope that, in dealing with the group, as little as possible will be done to obstruct the full education of the individual, but the latter cannot be directly envisaged. He has thoughts and capacities of his own and ultimate possibilities unknown even to himself, and in dealing with these one must leave him to himself, strengthening his will as best we can. But in dealing with the mass, as the State or the School has to do, one needs common denominators, the largest of all for the nation as a whole and smaller ones for the smaller groups. What is the largest?

It will be seen at once that we are returning here to the distinction made in the first two chapters between the personal and the public view in education. We are returning with the enlightenment which may have come from fragmentary glances at different places where the State

in our own country has been assisting at the improvement of education on its public side. We have seen something of the necessary limitations of such efforts and of the difficulty of assessing their results. It is clearly the point in our study to stay for a moment and try to collect our ideas as to the general purpose of what is being attempted. After that one may start again and analyse the work in its essential nature.

As so often happens, it is far easier to grasp the thing as a whole and appreciate its general bearings, than to apply and realize it in the working institutions which we have to hand. It was so with the personal aspect of education. Few would question that, for the individual, education consists in the fullest development of all his powers. Yet how rarely one sees any consistent and well-sustained effort to carry out this commonplace. So with the public aspect. There can be little doubt what education means, looked at either from the point of view of the human species as a whole or of the nation, which is here our concern. What is it that distinguishes man on the intellectual side from all other living things? Man has become man, and continues his upward progress, by handing on from generation to generation an increasing wealth of knowledge and capacity. Mentally the lower animals are static, or, if their mental outlook changes, it is, so far as we can see, dependent on the biological change. They do not grow sociologically, as man does by transmitting his collective intellectual wealth. Education for man is, therefore, in the first place and fundamentally, the initiation of each member of a new generation into this collective heritage. This is done unconsciously and in a thousand ways by the agencies which work upon the individual as he grows up in society; but, seeing that, if left to chance, the result becomes increasingly imperfect, human societies have gradually elaborated a system by which this haphazard and unorganized education is supplemented and made as

complete as time and talents permit. In modern times this organized education has been conducted more and more often and with more and more thoroughness by the State, i.e. the political authority in each community.

Whoever conducts this systematic education—whether the parent, a private benefactor, a religious body, or the State—its substance must be the same. There will be abundant differences in detail and in temper but all will be trying to transmit some part of the heritage. Even those like Mr. Bertrand Russell whose views are most subversive of the prevalent type of education, are only turning one part of what they have inherited from the past against another. Sum up the whole of what he or any other advanced educator is doing in his school, and it will be found that the greater part of it conforms to type.

It will be said at once that if the heritage idea only produces such results as these, it is of little use as the guiding conception in education. The exact opposite is the right conclusion. As we cannot escape it, as in any case we derive from the past, let us face the fact in all its bearings and make our action as complete and harmonious as possible. The faulty applications arise from following one strain in the heritage and neglecting others, often more important. Thus the classical curriculum, the exclusive study of Greek and Latin, which reigned for so long and is still not extinct, was faulty, not because the Greek and Latin classics were not worthy of study, but because in the process of time their exclusive or supreme value had been lost in the growth of many other things in the human heritage. And the extremists on the other flank err, not because there is no value in the idea of free and natural development, but because they emphasize only one element in the making of man and by doing so lose much of the riches which have gone to build up humanity and make life happy and noble as well as active.

The complete man, then, it will be asked, is your ideal, compounded by some artificial and impossible chemistry from chosen ingredients in the past? A complete man, yes; for no other ideal can ever satisfy the mind: but not by artificial or impossible means, for this process of choosing, reincarnating, and spreading the chosen elements, is always going on, but too often in a partial and contentious spirit, missing the attractiveness, the happiness, and dignity of harmonious strength.

Let us at least assume for a moment that the ideal is a tenable one, and think it out in relation to the state which the vanguard of mankind have reached at the present day. It will clearly be widely different from that attained at any previous epoch. The Greek, the medievalist, the man of the Renaissance, did thus think out his ideal; but we, confused by the multitude and stress of modern movements, have for the most part relinquished the attempt and taken refuge on lower levels. The heights may be for the moment beyond our reach; but it is possible to sketch them as a guide and inspiration. The first and most distinguishing feature in the complete modern man would obviously be an awareness of the results of scientific thinking and research, especially in the two great domains of the physical universe and of life. By this alone, if really apprehended, the young of the rising generation would have entered so far into their heritage that they could have no doubts either of their title or their prospects; the want of it is at the root of much of the pessimism of the day. With the teaching of science—the side of the matter in which knowledge is the first consideration—would go naturally the acquisition of manual and mental dexterity in which the specialists of our time are as eminent as any. The conquest of the air and the use of wave-mechanics are the outstanding wonders of the age, and no one would question that to put the youth on the scientific plane of understanding what

these involve is necessary and would meet with the warmest response. On this side the rising generation is even more eager than its seniors, and nothing could be more inspiring or satisfactory from the educational standpoint than the sight, to be enjoyed any day this year at a central elementary school in the Black Country, of boys building their own school organ for their assembly hall. Biological teaching, which is still less developed in England, will have its own charm and possibly a wider scope.

We shall deal in the next chapter with the teaching of language and mathematics as the necessary first instruments for all thinking; but it should be noticed that by placing science and technology thus high in the scale we are securing the most attractive approach to history. From being able to do these marvels, one passes naturally to asking how men have learnt to do them, and is plunged at once into an atmosphere of living history, more vivid than the political and constitutional questions which belong more properly to later years, though they still hold their pre-eminent place in the examination papers.

In gaining his contact with science and its applications the youth is in a class-room which embraces the world, but he is also **English**, and in this book we are thinking primarily of our own nation at school. His history therefore, as well as his language, will have special reference to the past which has made the smaller as well as the larger entity to which he belongs. There is no contradiction in this but an intimate and necessary connexion. He would not know the latter except by his progress through the former. Assume him, or his parents, to be complete cosmopolitans in theory, he will yet have first to learn the language of those among whom he has been born, before he goes on to his **Esperanto**; and this language, like everything else, is part of his heritage from the past. For the educated English the most formative part of the heritage

has in most cases been the struggles, mistakes, and wisdom which have built up the nation, and the love, imagination, and experience which have created the most glorious literature in the world. It is a starveling education which has allowed so many millions to enter on their life-work without enough knowledge or taste to attach them by the strongest bonds to the best part of their special heritage.

This thought, which all must share who know the facts, leads directly to two general reflections which seem to sum up both this chapter and the one preceding it. The first is the obvious inadequacy of any formal external examination to test the acquisition of the most precious things which a well-directed education has to give. A limited use it may have, if kept carefully within the limits, and if those in charge of the scholars have in mind the fuller scope of their work. The other point is relative to the suggested 'general aim' of this chapter. We saw that of the great aspects of the mind—knowledge, mental power, and the appreciation of values, especially beauty—the first is most amenable to direct and measurable testing, and the last the least amenable and the most neglected. Without elaborating the psychology of this, for which we have no space, it is suggested here that the simplest reconciling idea, the most fruitful practical notion, is that of placing the scholar, so far as his capacities permit, at the position reached by the best thinking and acting which have made the society in which he lives. There is the heritage, and we shall see in a later chapter how, not only in science but in art and all other sides of his activity, he is drawn on to realize his powers in conjunction with others if the connexions are freely working. The heritage idea is both a sound and a definite one, for it gives due weight to the importance of knowledge, but presents knowledge not as a static but a living thing, achieved by active minds in the

past and to be carried farther in the same way by the learners of the present.

But the notion has an even deeper value on the side of enjoyment. Heritage suggests that: and it is both an obvious and a profound truth that not only the enjoyment of all the works of men, but also the sense of beauty itself, the response to simple pleasures, and the zest of life have come to us from the past, made purer on the journey.

To understand how this has happened, what it implies, and whither it is leading, are among the deepest problems of biology, history, and philosophy. But to appreciate the fact, to quicken the process, and spread wider the results belongs to education.

XIII

THE INSTRUMENTS

IT may be thought that, having invoked Socrates in Chapter I, we were led on to attempt a Platonic flight in the last, and describe an ideal, laid up perhaps in heaven, but unattainable on earth. The obvious duty of a school for the masses, it will be said, is to teach the young something of the actual world they live in and enable them, if possible, to earn a living in it. No doubt that is so, and the simple-sounding task is no easy one. But even the stern necessities of to-day ought not to blind us to the larger truths, if we can see them founded on facts of human nature borne out in the history of man.

Now, as ever, the necessities of life have to be faced, but we are placing an alien and quite impossible burden on the schools and their teachers if we expect them to find jobs for their pupils. That is not their function. It is for pupils and their parents, especially the latter, to consider possible openings in life and take the responsibility. A friendly teacher will help, but his proper work is training the mind and giving to his scholars that common background in life on which they all may meet. The work of education should be shared by all who have to do with the child, just as the facts which centre round the village pump come into his consciousness outside the school. Above all, seeing the parents' original and unescapable responsibility, it is most unreasonable to visit on the teacher's head all the child's ignorance and indifference to the good and bad around him. The teacher has a task of growing difficulty; it only hinders him in doing it if we load on him all the miscellaneous interests which in a modern society tend to crowd round the life of the young and stifle their thought.

The training of the mind—with due respect for the body—is the teacher's proper sphere. The world with its varied and exciting interests is more insistent every day, making it more urgent that the teacher should strengthen the inner and deeper forces which hold the mind together and give it harmony and a consistent aim. The most elementary things we have to teach at school are just as rich, or even richer, in material for enlarging the spirit as anything we may study in later life. Language and number are the two essential instruments which form the basis of all education, and in their instrumental stage take up the bulk of most young scholars' time. It is quite right to recognize that they are instruments: we need the first to communicate with one another and understand the thoughts that our spiritual ancestors have handed down: we need the second to perform any quick, far-reaching, and fruitful operations on the world around. This is the utilitarian or pragmatic sanction for teaching them. But we should look farther than that, and in the case of literature we always make some such attempt. Both language and number were born from the necessities of man's life as a social being, but in their development they absorb and express his history. Both of them in their finest expression are as beautiful, though in another medium, as any of his creations in the plastic arts.

Language in some form takes the greater part of the time of all young people in the earlier stages of their education. That being so, it is a matter of fair comment, and not much to our credit, that the net result is so scanty and exhibits such glaring gaps. Take first the signs of written and printed speech, the alphabet. That alone is sufficient to provide a complete syllabus of history teaching for Western peoples. It takes us back through Romans and Greeks to the Phoenicians and the early painters of picture-signs, and we can still trace in the A and M—and other

letters—their simple drawings. Is this too small or dead a thing to be worth attention in language teaching? Surely on the contrary it is a priceless and immortal record of human continuity and indebtedness, and though well established and easily accessible in scores of books, it remains practically a ‘dead letter’.

The origin and use of speech as the first means of concentrating the attention of more than one person on a given object or action, opened the way to the whole course of mental evolution. Is there no lesson to be drawn from this as to the clear, concrete, and accurate way in which language should be taught to each new generation which has, in brief and happily with some omissions, to go again through the experience of its predecessors? We are still only on the threshold of teaching methods in this and other matters which, while based on the historic nature of man and recalling us to it, should be firmly turned to the future, using and purifying the old deliberately, to make better instruments for the coming world. Brilliant ideas are wafted to us by the wireless, but the school army moves but slowly, its pace measured by the Master of Examinations.

Two other vast aspects of language work demand a word of notice. In all schools some attention is given to the higher creations of language in poetry and good prose. The unspoilt child is very sensitive to the gayer and more vigorous aspect of speech. He loves a good ballad and a well-told story. But the taste is too often lost or overlaid and obscured by a mass of later rubbish poured out in newspapers and inferior books. It is possible that the widening of the horizon which will be suggested in the concluding chapter, would actually give more reality and richness to the national portion. For instance, last year (1932) we were celebrating the almost simultaneous deaths of both Scott and Goethe. One understands

either of them better as the complement of the other. The two together built a fortress of hope and beauty most needed in our storm-tossed age, and, thus combined, we learn best to know and love them both.

The other most important aspect of language-teaching is connected with this. We have never yet contemplated the teaching of a foreign language as part of every man's education, to be begun in the elementary school. But the arrival of the central schools and their necessary merger in some form with the secondary, gives the question fresh life. Many of the central schools have made a beginning with French, and in some of them, especially with the girls, the conversational part of the subject seems as good as in the average secondary school. Obviously every educated man should possess at least one other language beside his own, if only for the intellectual training of making his thought clear by translation. We, speaking one of the great world-languages which is likely to become universal,¹ have an initial advantage which brings with it a drawback. Assuming the growing universality of English, we are left free to choose our other language, or languages, to suit our taste. It may be French, as usually, or German or Spanish or Italian. There is much to be said for all of them. But just in so far as our own tongue becomes universal, we lose the strong practical motive for learning other peoples'. We are apt to be lazy and we tend to be proud. The less fortunate natives of smaller countries, or of countries which do not possess a language of universal currency, are compelled to spend a quite disproportionate time in learning some world-language for purposes of intercourse, and are largely debarred from the study of other languages for their beauty or their literature or their history. In many cases a nationalist government, wishing to keep the native language alive,

¹ See *Basic English*, by G. K. Ogden.

imposes it in full measure on the scholars, who are also compelled for other reasons to learn English, French, Latin, or what not. So it is with Ireland, South Africa, and part of Wales. Where Eastern lands are in close contact with Europeans, as in Egypt and India, a similar state of things exists, and one longs for an age of greater simplification.

Mathematics is the second of the fundamental instruments, running parallel with language in the historical evolution of the race. It is the language of science and much more than that, for the practical import of number is present to the pre-historic man before he can articulate his sounds or count his digits. The two forms of articulation and numerical analysis would seem naturally to take shape together. The earliest man—pre-language and pre-number—would make an inarticulate but intelligible sound to warn his mate that there were more wild animals in view than he had expected. The number, and the nature of the danger, both call for the articulation of thought which builds up arithmetic and language side by side. We are told by the learned in this subject that the original perception of number is as a whole, before counting had begun.¹ Thus birds have been found able to distinguish between a group of five or three, although they certainly have no sounds to convey either, as a number, to their mates.

No one will suggest that a modern youth, with the expanding universe awaiting him, should spend his time in school repeating the steps by which mankind has advanced, from the dim consciousness of number in the mass to the transfinite numbers of the nineteenth century. Yet he should be conscious that the instruments he is taught to use have a history like his own, that they too are a creation of time and the travail of the human mind. It is this background to the picture which gives reality and dignity to the present and throws a search-

¹ *Number, the Language of Science*, Tobias Danzig (Allen & Unwin).

light on the future. Without it the passing show in which we live would become meaningless, frivolous, and immoral. How can he work for the future who does not know the past?

The story of mathematics is as fascinating and international as that of language. In it the great thinkers—the Greeks and Indians as well as the moderns—take the place which the poets hold in the story of language. The parallel is curiously close, for the creator in mathematics forms a new ideal construction which has a beauty of its own, and is the material and inspiration for other works, just as the poet does. And whereas the poet works on the minds of men, spurring them to action among themselves, building cities and fortifying religions, the mathematical thinker, whose creations arise from the universe of space, gives them back to that sphere, to order it still better as the home of man.

However, the instrumental aspect of mathematics, as of language, must come first, and it is of this that we are thinking primarily in this chapter. Man began to count and measure for the needs of his daily life, and in this respect at least we should in teaching follow the evolution of the race. The method is familiar enough in every good kindergarten but should not be driven to extremes. To grasp the practical utility of the arithmetical processes gives interest and reality to the work, but to make the work easy and accurate, mechanical practice is needed, though not to the extent which prevailed in the schools of long ago. Precisely the same principles apply to the beginnings of geometry and algebra, where unfortunately, owing to the fact that these subjects have not been generally first introduced to the pupils by trained kindergarten teachers, the teaching was till recently on less realistic lines. Geometry obviously should begin side by side with arithmetic, and algebra be presented as a simple form

of generalized arithmetic, for stating and solving problems in a less cumbrous way.

The scholars in a junior technical school have an advantage here, for they have the opportunity of seeing at once that their mathematics are as essential instruments as their compasses. For them it leaps to the eye in their practical training, for others it has to be introduced as an educational method. One of the best popular books in English for teaching the calculus to young students was written as a manual for technical school pupils and we shall have occasion to refer to this point again in a later chapter. But there is another aspect of the same question which is of so much interest in general education that we ought to say a word about it before passing on.

It will have been noticed that so far in this book there has been hardly any discrimination between the education of boys and of girls and no chapter on girls' schools. This has been done for two good reasons, (1) that in the majority of all the schools in the country the boys and girls are taught together, and (2) that far the larger part of their instruction must be identical even if they are in separate establishments. But in this matter of language and mathematics—the instruments of the mind—there is historically an interesting contrast between the sexes. The woman has always been more carefully trained in speech and more competent—at least privately—in it. She has been the greater lover, though not the greater maker, of poetry, and in the arts and history the traditionally trained woman could always hold her own with the man. But in mathematics and the allied sciences the opposite holds good. The traditionally trained woman was nearly always much weaker in mathematics than the average man, and Sophie Germain and Mary Somerville were prodigies, attaining their skill surreptitiously against the influence of their friends and the society of the time. Perhaps the chief

intellectual effect of the modern education of women has been its tendency to redress this inequality. The modern girl receives approximately the same training in mathematics as the boy, and, though some critics think that she is being over-pressed, it is well to remember that mathematics in the past have been the basis for man's intellectual advance. One may hope that the girl's mind, more sensitive to details and more open to aesthetic response, will add to our general appreciation of the beauties and neatness of mathematics. If she is to be spared anything, let it be the senseless iteration of exercises which has been the heaviest burden on the mathematical training of the boy. Some clearance in these thickets would give the girl a better glimpse of 'les clartés de tout'.

THE GROWING HARVEST AND HOW TO REAP IT

WE saw in the last chapter how the two fundamental instruments of the mind, language, for communication with fellow men, and measuring (by number and length), for operations on nature, grew as men grew, until at length they embraced a world of beauty, complexity, and power. Language has given birth to poetry, mathematics to a universe of thought which seems to some thinkers to be the ground-plan of the Creator. Yet they remain instruments after all, and it is as instruments that we have first to introduce them into the education of the young. The substance of that education is better regarded under its two great subdivisions of history and science: history being the record of all man's doing and thinking on earth, science the sum of what he has formulated about the earth, what it contains and its environment. In this wide sense the instruments themselves find a place in the substance of knowledge, for language is one of the most important things that man has achieved, and mathematics the foundation and framework of science.

Now when we come to consider education from this point of view, as bringing the young in contact with the growing volume of knowledge, the task assumes its most puzzling and overwhelming character. Difficult as it is, it is yet possible to give the young a sufficient competence in the instrumental part of their education. They can be taught enough of language to make themselves understood, and with a little effort a foreign tongue may be acquired sufficiently well to open up intercourse with those who use it as their own, and to enjoy something of the literature to which it has given rise. So with mathematics. It is clear, from the abundance of engineers, that enough mathe-

matics may be learnt at school and college by an average youth to enable him to perform the necessary practical operations of modern civilization. But the volume of knowledge as a whole is always growing at such a rate that it has long been impossible to overtake it in an ordinary education, and now it is commonly said that to master any one section of any branch requires the concentrated devotion of a lifetime. What then is to be the attitude of education to modern knowledge?

The problem is a new one, for neither in the ancient nor the medieval world did the volume of attainable knowledge seem out of reach of an industrious student. Aristotle combined the whole and no doubt expected those who sat at his feet to attempt the same task according to their powers. So with the schoolmen and in the scheme of the medieval universities in general. The present difficulty is due partly to the growth of history and the unveiling of the records of the past, still more to the unparalleled extension of our knowledge of the processes of nature both in the animate and inanimate spheres. As there is every reason to expect a continued growth in both main branches, we are clearly at the beginning of an accumulating and permanent glut, and it is well to take stock of it. One very natural result on educational thinkers has been to turn them away from knowledge as a chief object, at least in schools, and to make them say, 'Aim at training an inquiring mind and knowledge will follow'.

This point was touched on in Chapter XII. It has a limited force, and it may be well here to consider again both its quality and its limits. If we were isolating any one mental characteristic as a desirable object in school training, it might be this inquiring mind, backed by a strong and enterprising will. But no such isolation is possible. The scholar goes out into the world a mass of forces and

impulses more or less well co-ordinated and more or less well enlightened by knowledge. If we train too exclusively the power of initiative and the inquiring mind, we leave him largely without guidance and without the material for judgement and enjoyment which have been amassed by ages of thinking men. Without this guidance and food for thought, we run the risk of a rising generation—intellectually hungry perhaps—but battling blindly about things long since settled, and worst of all a generation too much concerned with its immediate desires. Are there no signs of these things already? And there is already a curious paradox produced by modern popular education. For the first time in history all civilized states now provide education for all their citizens and compel them to accept it; and at the same time there is a greater gulf than ever between those who make the pursuit of knowledge an object of their lives and the mass who do not. No one interested in the future of civilization can be satisfied with this, for mankind must move on as a united body, and knowledge should unite and not divide. But great differences of knowledge and taste are barriers even stronger than differences of wealth.

The need of knowledge, which has been the theme of moralists since philosophy began, has become more difficult to satisfy in days when knowledge is mountain-high, and the need is crossed by the still more insistent modern demand for initiative and an independent mind. The problem can never be completely solved, but we may move towards a solution of it on certain well thought-out lines. Unfortunately our programmes as a rule are things of shreds and patches, not thought out as a whole, but altered and added to from time to time, as new demands are made on the schools, and new branches of knowledge and training become attractive. From the point of view taken in these pages, the general object of education, as

administered to the individual by the community, is to place that individual as far as possible in the position occupied by the all-round civilized man of his time. It is necessarily a very general formula but it gives definite guidance. It implies a leading, though not an exclusive, place for knowledge. It implies an historical approach and it implies synthesis.

The last point, more synthesis, is of the most practical importance in teaching, and a few typical illustrations shall fill the remainder of this chapter.

The main problem as we have seen is the growing mass of knowledge and its dispersion in an equally growing number of specialisms, which, though they have internal connexions and really form one whole, are apt to be treated, especially in education, as if they were all independent items. Synthesis sounds like philosophy, but in this connexion it also means mere common sense. The harvest field, waiting for the reapers, is larger and fuller than ever. Two counsels at least seem obvious for those who are to direct the operations. First, to survey the ground as a whole and gain some general conception of its extent, its limitations, and its contents. Second, in reaping, not to attempt to carry home the ears one by one but to reap in sheaves, to make the sheaves as large as may be, and divide up the sheaves conveniently for collecting and storage.

The field of knowledge is in the human aspect *one*, for it is all that man has come to know, acting collectively through the ages. But it has one first broad subdivision, into those things relating to himself, what he has done and thought, which we usually call history, and the outer division which is science, knowledge about Nature. Philosophically of course the two regions interlock, but for practical purposes and especially for education the double point of view is necessary. We have seen how in his first mental stirrings man has used two distinct instruments for

the double aspect, viz. language and mathematics. Just in the same way the mass of knowledge, which has to be attacked, falls for practical purposes into the corresponding divisions of the humanities and natural science. We need not confuse these two in teaching, if we recognize their internal links, and if, both in study and in teaching, we lay most stress on those meeting-points where many details find a common source or explanation. Our illustrations may well follow the same order, from the most general downwards, and we may fortify ourselves at starting by invoking again the authority of Matthew Arnold, and again with a difference. Arnold, it will be remembered, was strong in recommending the use of *points de repère*, marks used in building, and other forms of construction, which show where other parts fit in and enable the builder to retrace his plan. The application is obvious for things of the mind, and has been extended since Arnold's time by the deeper significance now attached to history. Our first illustration therefore may well be drawn from the field of history, that side of it contiguous to the realm of Nature.

If some one tells us that the history of science is a most important and interesting subject, and should be included in the curriculum of all higher schools, we shudder at the thought of another item on the overloaded time-table. But if some one else points out, in its due place, that exact science began on the west coast of Asia Minor, among the same men who first raised the standard of Greek freedom against the East, he interests us greatly and adds to the light, without increasing the burden, of those who study ancient history. The same is true of both sides of the main subdivision, humanities and science, and throughout the whole course of history. It is equally enlightening in the modern world where one sees at the conjunction of Galileo and Newton the alliance of ideas of order in the sphere of nature with the organization of the modern state. The

history of science in fact is the best example of a *point de repère*, for it has the widest scope and the clearest indication of direction. It need not be a special subject except for the specialist, but, being in the mental background of those who teach or those who study more deeply, it collects and illuminates a multitude of otherwise disconnected facts.

This is the largest case of synthesis among the ordinary school subjects, but every branch of study will furnish a host of good examples. Nor can one think of any other method of avoiding either a complete one-sidedness or an intolerable—and very soon an impossible—cram. History, in its ordinary sense, affords abundant scope for better synthesis, for though the ‘Unity of History’ is now a commonplace,¹ there are few who practise it. The Annual Report of the Historical Association for 1932 contains an account of some 450 meetings and lectures held during the previous twelve months to promote the study of history (for which the Association exists). Of these only 22 dealt with ancient history in any form, and 35 with general theories or methods of teaching. All the remainder, more than 87 per cent. of the whole, were concerned with modern or local topics. History, *sans phrase*, still means in schools and in common parlance, modern political history and for the most part the history of England since 1066. This is what any secondary schoolboy thinks you mean if you ask him whether he likes his ‘history’.

Here is the field above all others where synthesis is called for. Admitted but not applied, garlanded by preachers and philosophers, but carefully excluded from the chairs of teachers or professors, the idea of history as one remains the most potent agent for bringing order and harmony into our intellectual education; and waits to be employed.

¹ Mr. H. G. Wells’s popular book is an attempt, from the point of view of a man trained in natural science, to attain a unitary view of history often of course advocated by others both in England and abroad.

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But Kant's prediction of just a hundred and fifty years ago is coming true at last, and teachers and examiners are concentrating more on these events in the past which appear to have had most influence for good (or evil) on the general welfare.¹ It is on these lines that the greater synthesis will be gradually reached.

Two familiar illustrations may make clear both the general principle and the advance which is being made in our own time towards seizing the more constructive points.

The Peloponnesian War has been for generations the favourite topic for the historical study of Ancient Greece. It owes this distinction partly to the thrilling tragedy of many of its incidents, still more to the fact that it has been recorded by one of the greatest masters both of historical writing and of the Greek language. As such it will continue to be read as a moving story of the folly, selfishness, and blind heroism of thousands of the most gifted race who have preceded us on earth. But as a concentration centre for the study of Greek civilization it is pitiably inadequate. It shows their city-state on its least constructive side. It puts into the foreground the weaknesses rather than the strength of their public men. It ignores the supreme contributions of Greece in art, philosophy, and science, and it leaves the reader with a firm conviction that the sooner such incompetent bunglers of their own affairs were superseded by Macedon and Rome the better for themselves and the world.

In early English History a topic suggests itself, not of course strictly parallel, but with just those aspects of constructiveness, significance, and fruitful sequence which seem most wanting in the Peloponnesian episode. That is the Danish invasion and the wars and settlement of Alfred. Here something took place which led to a profound and permanent change in the structure of the race and its

¹ See Kant's *Idea of Universal History from the Cosmopolitan Standpoint*.

institutions. The story also has its heroic and moving aspects, though never immortalized in literature by a master. It ends with a sane and useful settlement, and all that we are learning now about Scandinavia, our kinship with its people and our national debt to them, exalts the event and shows its wider bearings.

Clearly history can only prosper in future as a general discipline by falling into such a system of concentration: hence the urgency of sound choice. Science, though equally complex in details, is in a better case in one or two important respects. It is true that science, not linked up traditionally with literature as history is, has no Homer or Thucydides to glorify its great events, and that is a loss. But on the other hand, to give it a lead, it has mathematics, which is the purest type of synthesis; and as men of science themselves revise their conclusions with much more unanimity than historians, it is always easier at any one time to know what should be the leading lines. We advance for instance the following three or four examples from science with much less fear of contradiction than in the examples from history.

First, and most obviously, the calculus. As the perfect example of bringing diverse things together it should take its place in the general education of every one, and it has the further educational attraction of being extremely interesting.

Then, in physics, no one would now dispute that radiation takes the place of the most powerful unifying idea. It has destroyed the separatism which prevailed a hundred years ago, and now all branches of physical science find a link in the common notion of the wave which can be made obvious by the simple analogies of sound and water. In wave-lengths of various dimensions all the facts of light, radiant heat, electricity, ultra-violet and X-rays have a *point de repère*.

In chemistry a similar link is found in the fact that the same elements of matter have been discovered in all parts of the universe, the sun and stars, as well as in the earth and in living beings. This link has the advantage that it forms a bridge for passing to the phenomena of life, whereas electrons and quanta still remain in an intangible world of their own.

But students of life may well rejoice in having for themselves the most brilliant illuminating point, in the doctrine of evolution, which has advanced biology in the last generation to its present position of dominance and comprehensiveness. Those who wish to see how a great unifying idea, skilfully applied, may give force and coherence to a mass of facts should turn to the last popular presentation of the subject.¹ One cannot doubt but that this impulse, added to the universal presence and interest of the theme, will sweep biology into the school curriculum, where it may itself perform a work of unification which the time is not yet ripe to discuss.

¹ *The Outline of Life*, Wells and Huxley.

SEATS OF LEARNING

THE last chapter dealt with the capital problem of modern knowledge, the growing and seemingly unmanageable mass which now confronts the modest citizen who has to earn his daily bread. It is for him that the State has created the mighty system of schools and colleges of which we have been trying to gain a glimpse here and there. For knowledge—its conservation and increase—the seats of learning had arisen from the Middle Ages onwards, and the relation between that average man for whom we have been caring in recent years and the seats of learning which until recently certainly did not care for him, is the first and principal point to which we shall refer in the brief remarks about our universities which follow. It would be absurd to attempt anything comprehensive on so great a subject as the recent development and present work of those institutions. It would also be unnecessary, for Dr. Flexner's recent Rhodes lectures¹ have done the thing admirably, not only for England, but for Germany and the United States. His point of view will commend itself to all who value knowledge in a modern community and wish to increase it. All that can be done here is to connect the universities with what we have seen going on in other parts of the national system, and on one point to make a suggestion which does not seem to have occurred even to Dr. Flexner.

No doubt the universities in their early days were frequented by poorer students than have since attended them; but this did not arise from any determination on the

¹ *Universities; American, English, German*, A. Flexner, O.U.P. It is a matter of rejoicing to all his friends and to the friends of research that, since the lectures were delivered, Dr. Flexner has been placed by private munificence at the head of just such a place of higher research as he pictured at Princeton, and that he has succeeded in obtaining the presence of Einstein as his first researcher.

part either of Church or State to spread the advantages of higher education over the whole community. As the priest and the lawyer needed to become 'clerks' and the church academies were the only providers of letters, every one crowded into them who aspired to a clerical career. As the public services became laicized in the sixteenth and seventeenth centuries, the universities became the training schools of the governing classes. In England governing functions were more widely spread than elsewhere, and every gentleman might expect to take some part in legislation or administration somewhere. Hence this aspect of the universities became, and remains, more prominent than abroad. The University of Paris stood in medieval Europe for the great home and storehouse of thought and philosophy. The University of Berlin was established in 1810 deliberately to build up the nation on the intellectual side after its defeat by Napoleon. Neither of these statements could be paralleled at any time in Oxford or Cambridge. Their eminent work is due to eminent individuals, and as a whole they have, somewhat imperfectly, reflected the leading currents of opinion in the country rather than given any lead to them. The awakening in the nineteenth century came therefore later to them than it came to the schools of the people. By the time of the great Reform Bill it had been realized as a national duty to see that the poorest and most ignorant citizens should not remain without a minimum of instruction, and the State from that time onwards began to subsidize and regulate elementary teaching. But it was not till 1850 that the first University Commission was appointed by the Government, nor till 1871 that the Act abolishing religious tests opened the way to treating the old universities as truly national institutions.

Many changes, all of a widening kind, have followed since. We will attempt to summarize them in a moment.

But far the most significant fact is the coincidence of these changes with the forward movement in the lower strata of national education. All are part of the same effort to send the nation to school. The first great batch of university reforms was in 1877. This was the year following that in which compulsion was first applied in the elementary sphere. By the Act of 1870 sufficient schools were to be built to provide elementary instruction for the whole population. In 1876 it was possible to insist that every one, not otherwise provided for, should take advantage of them. After that, down to our own day, successive steps have made the connexion closer between the primary education which the State provides and insists on, and the opportunities for the highest instruction which the State assists, but which is for the most part provided by ancient endowments or voluntary contributions.

These steps, of widening the avenues, assisting the approach, and making the university resources more directly educational, are of diverse kinds, but they fall easily into those three categories.

The avenues to a university education were widened both at the ancient universities themselves and by opening new ones. In Cambridge, for instance, while in 1862, before the reforms, the number of undergraduates was 1,526, in 1887 it had risen to 2,979, and has been much higher since. Before the reforms there were probably not more than 10,000 university students in the whole kingdom. In the last returns the number was something over 44,000. At the old universities the increase was due partly to the abolition of religious tests which had practically restricted entrance to members of the Established Church, partly to the introduction of new subjects, especially in natural science, partly to the pressure upward from below, due to the new schools which we have described in previous chapters. Added to this, came a new zeal for teaching the

undergraduate, the absence of which strikes us now as so odd and so scandalous in pictures of old university life.

The greater part, however, of the recent growth in university education has been due to the foundation of new colleges gradually admitted to university rank. This again is significantly contemporary with the national movement for universal elementary education. The same year, 1877, which saw the first great internal reforms at Oxford and Cambridge also saw the grant of a Charter to the Victoria University; from which both Liverpool and Leeds swarmed off from Manchester at the centre. Newcastle, for medicine and science, formed up by the side of the seventeenth-century Durham University just at the same time. Birmingham and Sheffield followed in the early years of the present century. London, now nominally the largest of all, was formed quite at the end of the last century as a federation of some seventy independent institutions, of which two—King's and University College—had been homes of general education and research for over sixty years. They had been founded just after the great Reform Bill, on a different religious basis, but in a common desire, which broke out at that time, for some sort of university education at the heart of the Empire. Now, before our eyes, a new home is rising for the University of London, hard by the British Museum, and absorbing the gallant little Institute of Historical Research.

Other causes, beside the building of new colleges, have led in recent years to the widening of the university field and the increase of students. Two in particular must be named—the higher education of women and the provision of teachers for the vastly spreading schools. They were concurrent. Girton, the oldest of the women's colleges, began at Hitchin the year before the Education Act of 1870. The others at Oxford and Cambridge followed shortly after, and when the provincial universities had led

the way in opening all their courses and degrees to women, the older universities slowly did the same. The parallel movement with teachers has led to the formation of training groups associated with all the universities and to an arrangement, within the last two years, by which the universities take a hand in examining teachers in training, even when they have been taught in independent colleges.

The universities have been popularized in another way by the provision of State scholarships, paid out of rates and taxes, to enable the most deserving scholars from elementary and public secondary schools to go to Oxford and Cambridge. And still more recently, as a result of the last University Commission, steps have been taken to limit also the award and the amount of the older college scholarships according to the family means of those applying for them. A double result should be secured. Any money saved on the maintenance of scholars is badly needed for the promotion of research. Still more obvious up to the present is the growing democratization of the student body. The post-war generations are simpler, harder-working, and more representative of the nation as a whole.

Side by side with these steps leading to a wider approach to the older universities have come measures calculated to make the education they offer more efficient, more suitable to the modern world, more attractive to the intellectual *élite* of the nation. It cannot be said that these have failed, for Oxford and Cambridge easily preserve their prestige among the other seats of learning, and the numbers of their students considerably exceed the pre-war level, although in the war-time there were many prophets who foresaw a collapse. The chief points to be secured by the reforms within the universities themselves were more pooling of the college resources, more teaching of the highest or professorial rank, more provision for modern subjects, especially natural science, economics, and modern political

science, and the removal of the clerical restrictions which dated from the ecclesiastical monopoly of the Middle Ages. All these things have been done. The universities have become, not indeed unitary institutions like all universities abroad, but corporate entities more and more conscious of themselves and exercising wider and wider functions. The colleges still exist in vigour but the universities have gathered powers and strength exceeding theirs. The purely college tuition which was once the rule has been largely replaced by inter-collegiate lectures. Faculties of science with magnificent equipment have arisen at both places, and Cambridge ranks as the largest, if not the most advanced, school of science in the country. Oxford, as this is being written, has taken up the task of making the Bodleian, long the most venerable library in England, also the most useful and accessible to her own students and the world. It would be impossible in our space even to enumerate the new chairs, readerships, and lectureships which have been set up to bring the old places in touch with modern life. They have even so far modernized themselves as to accept a modest contribution from the public purse.

Throughout these changes, however, the main national characteristics have stood firm, and it will be interesting to recall these before the final word on Oxford which Dr. Flexner missed.

The first and most striking is certainly this, that the Englishman, so long as he has expressed himself on the matter at all, has always prided himself on being *par excellence* the 'practical' man. You learn to do anything by doing it; that is the doctrine, and that there is much truth in it is plain enough. It was the prevalence of this idea, as we shall see in the next chapter, which differentiated our practice in technical education from that of most other countries. It has also kept the extension of education in the last century rather general than specialized at so early

an age as is common elsewhere. We must allow full value for this before we begin to consider the modifications which the growth of knowledge and the change in world-practice are now making necessary. Through it the English have the largest body of competent amateurs in the world both in sport, art, and general knowledge and literature. As our schools have improved and the national conscience in education has awakened, the watchword has been 'Character First', and knowledge as subsidiary to a good all-round man. We have seen how this works in the schools, and the consequent exaltation of games is patent to all men—a not unhealthy fact, but bringing with it some grave drawbacks on the intellectual side. The universities, for the major part of their activities, have been a continuation of the public schools. Just as the boy at school had his 'house-master' who took a closer personal interest in him than the general school authorities could do, so at the universities he has his 'tutor', to whom he goes either alone or with one or two others, and to whom he becomes known in his general character rather than as a student of some special topic. Changes, as we know, are being gradually introduced, but substantially this is still the system in the main, and contrasts strongly with the continental, and especially the German, system, where the professor is the main figure who collects round him the students who go to him for guidance in the subject of which he is a master. The link in that case is almost exclusively intellectual, whereas in England it has been predominantly personal.

Now this is a good thing; no one who has fallen under the influence of an Oxford or Cambridge tutor of the best type would exchange it for any other educational offer. To many men the fact that they knew So-and-So intimately as a friend, at an age when they were so far intellectually mature as to appreciate him, and still youthful enough to be enthusiastic, has been the turning-point in their lives.

And Oxford and Cambridge, with the resources of their colleges, are able to provide this boon in a way which other universities, either at home or abroad, cannot to any comparable degree. Therefore, if we are looking, as the Englishman always tends to look, for a forward movement which may gain a new end without forfeiting an old good, we must find it without sacrificing the personal relation of tutor and undergraduate. It will come, in fact it is in process of coming, in two directions. In the first place the number of professors has been much increased in recent years, so that the best available instruction on most subjects is to be had from them in lectures or classes at both universities. These more numerous professors are also far more zealous both in their lecturing and in their own researches than those of a hundred years ago.

But for the most part the undergraduate is still guided and stimulated in his work by the college lecturers and tutors, and it is in doing this rather than in research that the chief energies of the university staff as a whole are consumed. As they are thus occupied, and as the bulk of those teaching are college officials, it is obvious that the intellectual result of university training depends mainly on the mental attitude of the tutors and on the methods of study and examination which they pursue with their pupils. It is quite beyond our limits to examine the various plans proposed, and partly in operation, to raise the general level of the work done and to promote independent and original research. It will be more useful to take one large and typical subject and draw some conclusions from it. The example will be chiefly applicable to Oxford, though there are certain cognate remarks more suitable to Cambridge.

Let us imagine for a moment that Oxford and Cambridge were swept by a wave of intellectual enthusiasm such as Dr. Flexner stipulates. He sketches an ideal picture but does not give the appropriate English setting. We

assume that is 'the modern university, addressing itself to the advancement of knowledge, the study of problems, and the training of men', and ask, in the first place, what is the bulk of this knowledge which faces the modern university with its problems? There cannot be two answers. It is the scientific knowledge, to the unparalleled growth of which we referred in Chapter XIV. How does this relate itself to the traditional Oxford which we have inherited from the Middle Ages? Laboratories and Museums have been built, Faculties of Science have been established, with professors for all the chief branches. Yet the main centres of teaching, and above all the places for the study of practical applications, will be elsewhere. Such Institutes, often supported by public money, have been multiplying in recent years. Teddington, Rothamsted, Merton are well known and prosperous examples. But Oxford, and Cambridge in still larger measure, have sufficient equipment to make the study of scientific methods accessible to any of their students. Oxford and Cambridge have also between them a provision, incomparable in England, of two extremely valuable commodities—Greek and philosophy. It would seem therefore that, with no loss but great gain to their other activities, Oxford and Cambridge could do a thing that no other organized bodies of persons in England can, viz. apply a trained and philosophic mind to the growth of science. The urgent need of this is apparent in almost every popular book or newspaper. The wildest one-sided views obtain the readiest credence. Men talk of the tyranny or the licence of science with equal volubility. Everything may be heard except the quiet accents of knowledge and impartial judgement; and, with few exceptions, those who by applying a well-trained mind might enlighten and re-establish the public mind abstain or address themselves to other topics.

Oxford in this matter has so far shown herself curiously,

and unfortunately, English. The question mooted above was under discussion in Oxford for some years. It was seen that the old 'Greats' course provided just the right setting for the proposed and much needed new studies. It contained both history and philosophy, but of the classical type, the leading intention being to train the youthful mind by the ideas of the greatest Greek thinkers, and the actions of Greeks and Romans, in that atmosphere. To keep up the same atmosphere—a synthesis of thought and action—and continue or transfer the study into the modern world was seen to be exactly what is wanted. But politics and economics, as so often in English teaching, prevailed over the more profound and ultimately more decisive interests. A 'Modern Greats' school, excellent in itself, was established as the most needed or most practicable reform, and 'Science Greats' postponed as impracticable.

It is not to be imagined that the training of a few young men for two or three years on a revised syllabus will go far by itself to redress the balance of modern thought or restore the synthesis for which philosophy stood when Roger Bacon studied in Oxford. The establishment, however, of such a course of study would be the best proof that our oldest seats of learning aim at confronting the problems of the modern world. Cambridge, by a parity of reasoning, should address her philosophic mind to the history of science, for with her the greatest names on the roll are those of the experimenters and builders, Francis Bacon, Newton, Darwin, and the first of all historians of science, Whewell of Trinity. The school of Oxford would be primarily philosophic inspired by history and aiming at synthesis and value; the school of Cambridge primarily historic, inspired by experiment and resting on the rock of fact for which Cambridge stands. Together the two universities would do something to remove a just reproach

to English thinkers, that they are not contributing to the synthesis of modern thought a share comparable, either to their own of the last two centuries or of the other leading nations of to-day.

A prominent man of science summed up the other day at a public meeting the present position of thought as it appeared to him. 'We are not now, as formerly, concerned in the pursuit of Truth, or even believe in its possibility. We seek, and establish temporarily, truths.'

To inquire if this is so, and, if so, whether it is a necessity of progress, to trace the steps of this change in human direction, its consequences and its possible cure, would seem to be a noble and suitable function for seats of learning.

TECHNICAL TRAINING

THE last chapter ended with the highest object of any place of learning or research, the pursuit and, if possible, the establishment of truth; not merely of the particular truths which explain the infinite happenings which confront us in the world, but of the general framework in which the human mind is always impelled to think that they will be found to rest. The supreme difficulty of this quest at the present time arises from the multiplication of the details which have been discovered and the immersion of the seekers each in his own line of thought. The world of truth has therefore become more and more broken up and the hope of holding it together seems heroic and to many workers forlorn.

The world of action exhibits many kindred features. There too the increase of knowledge has made practice in the arts and industry a far more complicated thing and broken up the workers into armies of specialists, with their divisions, battalions, and companies. To know or practise more than a small part becomes for most men impossible, and the majority of the industrial army have become in consequence more limited and more dependent on the machine than men were before. On the other hand, with the great professions and with those who have to take command of some large industrial concern, say in agriculture or some branch of engineering, far more scientific knowledge and a more extended training and experience have become necessary. The whole field therefore has become even more complicated than that of pure learning, and no attempt can be made here to survey it as a whole. We will only touch on it in the same spirit as the other great aspects of education, and see how on the technical side also the English habit

prevails. On the whole we prefer people to learn as much as they can in common with others, and to gain their experience as far as possible in places where real work is going on. But as the industrial revolution has proceeded, especially in later years when foreign competition is pressing hard, it has become obvious that this simple arrangement will not meet the case. There must be special training, and at once a host of questions arise. Where is it to be given? At a school as part of a general education, at a special institution, technical school, or college, or at the works themselves? Who is to control and pay for this training—the State, the employer, the student, or all three in some proportion to be decided on? At what age is it to be taken, and what sacrifice of time and of instruction of other sorts is to be made to secure it?

These are some of the points which have to be settled, and they are now being canvassed in so many books, reports, and special pamphlets that it would only confuse the reader to attempt to refer to them in detail. It will be better to deal with the subject in broad outline, referring to particular cases by way of illustration.

It should be noted at starting that special technical training has always been required for certain occupations, and in particular for the highest of all arts, medicine. Seeing the supreme importance of their work, every civilized country has insisted on training for its doctors, though Dr. Flexner tells us that even in this we are outshone by the scientific completeness of the American—and no doubt he would add the best Canadian—medical schools. It may well be so in younger countries where the ground was free and funds abundant for building up from the foundations new institutions to embody new science. With us, in medicine as in law or education, many previous centuries had endowed us with institutions which tended to fall out of date, but which we have always

preferred to perpetuate and adapt. In medicine, the voluntary hospital occupies much the same place which the voluntarily supported school does in education. The prospective physician learns there, under expert guidance, the practical elements of his profession from those who give their services to the hospitals, just as the hospital itself is provided by the subscriptions of the public. For his scientific knowledge he attends lectures and laboratories, often in company with those who are taking up some other work in life. The enthusiasm and corporate spirit engendered among medical students, thus working together at the same hospital, are notorious, probably the keenest thing of the kind to be seen anywhere. They will often charge themselves, as the men of 'Bart's' are doing now, with raising funds for the extension of their own hospital or medical school and give the public no rest till they have secured it. Such energy should not be lightly thrown away; it is paid out more readily than rates or taxes. At the same time one notes the many institutes for some special line of medical research—Cancer, Tropical Diseases, and the like—that arise from the general benevolence of the public; and a large number of hospitals, as well as asylums, are, side by side with the voluntary system, erected and maintained by rates and taxes. The whole system, both in its spirit and its development, bears an interesting and significant resemblance to that which we have evolved for education. So with the law. One has the old 'Inns of Court', providing a certain number of lectures and the atmosphere of a college, where students 'eat their dinners' together and acquire something of a corporate spirit; while the necessary practice is gained by working 'in chambers' with a man who has plenty of real business to transact. The theoretical part—the lectures and book-study—is far more systematic and complete in most other countries and notably in the United States.

These are 'professions', with the prestige of age and the honour due to those who busy themselves with the fundamentals of life and civil society. But the builder and architect, the agriculturist, and, in a modern society, the engineer, could make out a good case for their equal necessity, and it is they and many like them who now demand a training specially devised to meet their case and to make science and art join forces in the public weal. We shall see that in this larger field the same general lines are likely to be followed, with the necessary modifications. Use, that is, existing means in schools and colleges as far as may be; give practice where possible in the place of real business; and let such additions and changes as are needed be made by consultation and agreement between the parties, in this case education authorities, employers, and employed.

The agriculturist is the man who best exhibits the changes and ravages of science both in his life and his need of training. His was the typical and predominant industry in the ancient and medieval world. It was proverbially traditional, and is now being displaced by engineering which is typically modern. The very names breathe a different spirit. Agriculture implies a careful attention to 'agri' cultivated. The word 'culture' actually means in some cases, as in 'le culte des morts', the worship of the thing cultivated, and the tiller of the fields has not only observed them religiously but been the patient slave of storms and seasons since agriculture began. Engineering is a creature of the mind; and the engine the slave of the inventor. Thus—still subject to the storms and seasons—the inventing mind takes charge of the farm. Soon the management of his machine will become as important a part of the farmer's training as knowledge of crops or soil. He becomes half mechanized like the sailor, while the soldier has been swallowed whole by his tank.

Two things follow clearly. Physical science in its application to machinery must occupy an increasing share of the industrialist's education. And for those in charge of any industry, thus mechanized, a longer and more elaborate training is needed.

The human equation in agriculture yields interesting results. It is found that one man can do the work of half a dozen on a mechanized farm, and the use of the machinery produces a profit about equal to twice the expense of maintaining the displaced men. The net balance seems to be, a much longer period of training for a few, a large increase of idleness spread over a great many people, a net advantage in profits if the produce is disposed of at minimum prices and the displaced persons are maintained at minimum rates.

The problem of the displaced men belongs to another and even graver subject; so far as technical education is concerned, the farmer with a mechanized farm would seem to need for himself a complete knowledge of soil and crops with a sufficient general knowledge of his machines, and for his men primarily mechanical competence.

The last case brings into prominence another, perhaps from the social point of view the most serious, of the many difficulties which surround this problem. Can we rest content with a solution which would confine complete competence and education to a small number of a managing class while the mass of the workers become mere machine-minders? This is not an idle or merely academic question, for it has been answered in the affirmative by the action of the great majority of employers in what are called 'capitalist' countries and it would seem not repugnant to the practice of the great country which is now experimenting in 'communist' production. Yet we must of course answer it with an emphatic negative. It is contrary to our ideal of a united and progressive human community that

its members should be thus segregated. Far better to go more slowly on the path of mechanization than to allow the process to make machines of a large part of the human family. But there is no such necessity. The worker dealing with a machine is far better qualified, even for his limited job, if his mind and skill have been developed beyond it. There is no contradiction whatever between doing well a small piece of machine-management and a general comprehension of its working and a capacity to turn to other work if the necessity arises. Hence the problem again becomes one of compromise to meet the necessities of life, while pursuing steadily the ideal of human development at the same time. The right solution must be to continue a general education as far as the individual and the country as a whole can bear it; but to make this education practical, suitable, and appreciated; and, on the strictly technical side, to give the young person opportunity, either in his school, or at his work, to become efficient and intelligent at the special thing he has to do.

England has just now some special advantages, but also some special drawbacks, in following out this course. One advantage is that the country is now awake to the necessity of it, and that not only is the country united, but also, in a broad sense, we have always cultivated the ideal of a practical education, an education which will form the character for doing a life's work. This new 'technical education' is only the modern phase of an age-long aim. It is also an advantage to have before us the methods and experiments of other countries who have anticipated our needs in several points. Of this, and the use we are making of it, a word will be said in a moment.

It is a grave drawback that the necessity has come when we are financially least able to bear it. There is, both for general and special education, a greater demand just now than the country has ever known. We saw in the first

chapter how this is a world-wide phenomenon. Yet, so far as it means money, the times could hardly be worse. England is better off in some ways than the rest, but in the matter of taxation it is impossible to forget that we are taxed, per head, far beyond any other nation, and that those who are concerned about the general position of the nation in the world and know most about it, deem that some relief of the burden is a first condition of safety.

Meanwhile much may be done, by study of the problem and of what is being attempted elsewhere to meet it, by modifying our existing methods and bringing schools and employers together in a new spirit, by starting experiments on a modest and practical scale. It would not be the first time in history that the most fruitful efforts have been made by men suffering under the heaviest handicaps or misfortunes.

The English effort to meet the new situation began in the last century with the establishment of mechanics' institutes. It was carried farther, largely under the stimulus of the Prince Consort and the first International Exhibition of 1851, by the opening of a government department at South Kensington for the encouragement of scientific technology. To this were at first attached all the grants and inspection of this type of education, and when, at the end of the century, the Board of Education was formed, all was brought under the supervision of the same minister. At the present time technical colleges are being built or enlarged in a good many places, and for junior instruction, i.e. for the instruction of those still of school age, there are in existence some 200 junior technical, junior commercial, and junior art schools or departments. The small number, compared with the large number of central schools of a more general type, is significant of the prevalent English habit, and to reconsider this and compare it with the practice of other countries, several committees and deputations have been appointed in recent years.

The last of their reports, and the most relevant to our theme, is that by two leading inspectors of the Board of Education who visited France, Holland, Belgium, and Czechoslovakia in 1932.¹ As it is understood that the Government has some forward steps in mind, this latest official publication has a special interest; but it is to be hoped that the information may be supplemented by knowledge of German and particularly Italian experience, where a fresh mind has lately been applied to educational questions.

How can we, by building on our existing system and making all possible use of our special advantages, meet a new situation which calls for a united and determined effort and has already contributed seriously to our troubles? That is the spirit in which the average Englishman will face the question, and it is not surprising that the two inspectors in this report adopt it. There are three or four lines of advance advocated, and we cannot do better than summarize them briefly, before mentioning a few other points needed to make the survey more complete.

1. The provision of more technical work of an educational kind, as part of his general school training before the scholar leaves to earn his livelihood. This, as we have seen, is being given in an elementary form by the handwork and gardening already installed in rather more than a half of the primary schools in the country. The new organization, which is grouping the senior scholars in central schools, should make this provision complete. Most places will prefer this type of school to the more specialized junior technical or junior commercial, but it should be a condition of their preference that the technical or practical side of the education given should be developed. This does not mean training for any particular trade, but giving a general intelligence and handiness which would be useful

¹ *Trade Schools on the Continent*. H.M. Stationery Office, 2s.

anywhere. In London these schools have always been divided into the two main classes, of those with an 'industrial' and those with a 'commercial bias', though sometimes the two 'biases' may be contained under the same roof. One might well expect that every scholar should learn to do something useful with his hands and every one also make some acquaintance with a modern language. But beyond that a first stage of specialization is very properly begun at this age between those who expect to follow a more manual occupation and those who intend to enter the ranks of trade or commerce. So far the Secondary school has catered mainly for the latter class, but, as the system settles down, there seems to be no reason why both classes should not be found in both types of school.

All this refers to full-time education, which we assume to extend to the fifteenth year. The next change in our practice comes after that, when the young workman or commercial employee has begun to earn a livelihood. This is when his technical education in the special sense really begins, and so far it has been met chiefly by attendance at evening classes. Now common sense says that no serious technical training can be acquired by a tired boy or girl after a hard day's work, when recreation and, above all, change of atmosphere are the things most needed. The technical training proper, i.e. the study and exercises connected with the work of the day, should be done in the day itself. Spare time and holidays are meant for pleasure or thoughts of a wider range. This does not mean of course that the keen beginner will not of his own motion go on with his practical work or his modern language in his own time, but it does mean an obligation on those who employ him, and on the State which authorizes it all, to see that he is adequately and intelligently trained during his working day. It is already being done in a good many cases, but more converts are needed among employers, and it should

rest with them, in consultation with the school authorities, whether the required training be given at the works themselves or in some outside school or institution, made suitable for the purpose. In England, among the engineers, builders, and printers, 10,000 young workpeople are already being thus taught. In France, as we learn from the official report, a law has been in force since 1919 which compels employers to release their young workers for not less than four, or more than eight hours, of their working time each week in order to attend compulsory courses of instruction connected with their work. There are various conditions and exceptions to this rule, but the main addendum is, that, unless the employer makes provision himself for the vocational training of his employees, he is taxed to the extent of 0·2 per cent. on his wages bill towards the expense of providing it elsewhere. A similar law has been in force for even longer in Germany.

It will have been noticed that the two largest classes of our workers in trade and industry are not covered by the facilities already offered by employers; these are the young agriculturists and those—the growing number—going into commerce. These are undoubtedly the most difficult cases.

Farm-labourers have in this country always been left more completely to traditional training than any other class of workers. It is so more or less everywhere, and is inherent in the very nature and history of farming. The oldest of man's settled industries is most bound by the rules by which it has always been conducted, and by which he has so far managed to survive and flourish. The upheaval which may be caused by the sudden application of science and large-scale production to our fundamental industry, is being illustrated at this moment in Russia. The need, we are told, may be proved with equal cogency in China. With us, science and new ideas have been mainly introduced into the tilling of the soil by large and wealthy

owners like 'Turnip' Townshend to whom the prosperity of Norfolk and some other parts of the Eastern counties was once due. The run of farmers were too conservative, or poor, or afraid of a rise in rent as a result of improvements. For the labourer himself no one dreamt of enlightened initiative, and from that neglected and laborious class the slums of the great cities have been gradually filled. Now, when our thoughts are turning back longingly to the country, we find that it is supporting only some 7 per cent. of the population of the country, and the task is arduous to induce a return and a revival. Local efforts are being made everywhere to stimulate intelligent methods, and mention should be made of the Young Farmers' Clubs, based on the schools and their gardens. These are active in many places and touch all the social classes most concerned. The Village College at Sawston in Cambridgeshire is an experiment in the same direction on a rather larger scale. It collects all the senior scholars from the surrounding villages and offers them an education of a much more practical kind than could be found in any similar centre elsewhere. A good wood and metal workshop and sufficient land for gardening and minor agricultural experiments make the place an admirable model for imitation when we can begin to expand again. A hall, a library, and a resident warden suggest the possibility of an institution such as the 'Volksschulen' of Denmark, Sweden, and other northern countries, where adult rural students will gather and reside for months in the winter studying to much more purpose than can be secured by the spasmodic evening classes in which we have hitherto indulged. These northern folk schools are one example among many of things we might well copy from abroad. Another is the careful thought and training provided, e.g. at the Handwork Teachers' College in Warsaw for those about to engage in educational handwork in schools.

We noticed in an earlier chapter how the first strong impulse towards handwork as an essential part of a primary education had come from Salomon of Nääs in Sweden. Now we find the Poles leading us again in training the teachers who are to do this work. All sorts of models and pieces of school apparatus may be seen at the Handwork Teachers' College, designed and executed by the student-teachers themselves, with plenty of real art thrown in. Many have dreamt of, and a few have agitated for, such a place in England for years, but it is yet to seek.

An 'agricultural bias' is now being attempted in a good many schools above the primary stage, and it is no doubt on such lines that we shall advance as advance becomes possible. Dauntsey's School, on the western slopes of Salisbury Plain, is an example of what may be done in this way by enlightened and determined leadership, based on strong local support. To encourage all such places, whether nominally on the primary or the secondary basis, to make them attractive and solid without overdoing the 'bias', or forgetting the more general side of education, and from such schools to select the best candidates for the Agricultural Colleges—this is evidently the policy of common sense.

On the commercial side there has also been recently an elaborate official report and an abundance of detailed suggestions. As a nation of shopkeepers it is rightly felt that if we fail to sell our goods, we shall have missed our vocation. But, socially, the question is so complicated that it is impossible to enter into the details briefly with any hope of profit. 'Commerce' covers the 'blind-alley' errand boy and the girl-typist, as well as the managing director with his £10,000 a year. The last-named makes his way by his own energy under any system; the national concern is to have a sufficient supply of competent people for the intermediate positions, and for this the training has not

hitherto been adequate, inferior for instance in most respects to that obtainable in the United States. Commercial classes have in a great majority of cases laid most stress on the necessary but humbler instruments of shorthand, type-writing and the elements of book-keeping. Those looking to the requirements of the future see the urgent need for a better knowledge of modern languages and a wide and sympathetic understanding of other lands and other peoples. To this we shall return in a concluding chapter.

Meanwhile, it may be useful to attempt a short summary of the national effort in education as a whole, its strong points and its weaknesses. Leading, as we believe, the world-movement for recovery, ardent for a good understanding with others and for the peaceful progress of all, it is well to be sure of ourselves. Where do we stand after a century of State-aided education?

XVII

THE NATION AS ONE

THE question with which the last chapter ended, had been already raised in Chapter I. It is the largest and most difficult which arises from State action in education, but, after a century of effort and with the vast recent increase in expenditure, some answer should be attempted. Nor is it impossible to say something on general lines, though impossible to satisfy those critics who seem to expect an exact business balance-sheet, showing so much educational improvement for every unit of money spent. Even such a general statement as may be made, is often open to quite legitimate question. A change in the public mind or public habits may be due to many other causes than school education, and on the other hand many defects, often attributed by the critics to schools and their teachers, may well lie entirely outside the sphere of their possible influence. Broad facts and the general balance of opinion are the basis of what follows here. Let it be said at once that we draw on the whole a very favourable conclusion; though it will be equally necessary to call attention to the adverse factors. The working of time will correct, or make still more evident, the truth of the judgement.

It is with elementary education that the State has been most concerned during the last hundred years. It is with that therefore that we begin. That is the foundation, and in the spirit of Dr. Johnson's saying on the title-page, it is for elementary education that the State should always care most. In England, as we shall see, in the latter part of the century, when the spade-work on elementary schools had been fairly completed, a great general forward movement in education took place. This raised the question from the level of State action alone to that of a national effort

bringing together a multitude of forces and motives. The nation was then awake, and it is largely due to what had been effected in elementary education that the awakening took place.

How can we sum up the position towards the end of the whole century, after the Board of Education had completed its first organization of elementary and secondary and when the Hadow Committee was advising the next step? Some have even said that we had already achieved an 'educated' democracy, at least in London. One ought not to claim that word; it suggests a false impression of the real position and would lull us into a state of undeserved content. But we may quite truly say that the democracy had become 'literate', more intelligent and improved in its habits of life and enjoyment. The first of these is no small thing; probably more than a half of mankind have not yet achieved it,¹ while, with us, most people now can, and do, from time to time read something, besides the notices in the streets, &c., which demand reading as we move about. It is the first definite and testable effect of the education given, and the chief means by which other influence has been exercised and much information imparted to the scholars' minds. The Medical Officers, reporting in the recent 'New Survey of London Life and Labour', hold that it is to the schools that we owe the recent marked improvement in the public health and the surprising reduction in the infant death-rate. The enlightened public opinion created by education had opened the minds, especially of mothers, to sane counsel tending to health. Added to this came in more recent years the use of the schools themselves for medical purposes. All this is a solid achievement to be placed on the credit side.

¹ 'What is a civilized man? A man, whether white or black, who has sufficient education to write his name, has some property or works, in fact is not a loafer.' CECIL RHODES.

This literate and more healthy democracy has also increased its enjoyments and its activities in a host of innocent and useful ways. When one sees the full use being made of all available spaces for collective games, the general sociability of hiking and youth hostels and school-camps, one must remember the influence of the schools. In all this and many wider ways the teachers, with the State behind them, have strengthened the national morale and heightened the consciousness of the common weal. It is difficult to say how far the schools have contributed to the keener political intelligence and the powers of organization which have made the Trade Union and Labour parties. There were great organizers and agitators before the State touched education, but education has given them a larger and more receptive public. Towards the end of the century an upward movement set in with considerable force from the ranks of the working class to positions of more command, and—possibly—more affluence in other spheres. This also has been helped by the State schools, and the working classes through their organizations have pressed for the extension of these channels. The black-coated armies have swollen their ranks, and, though the schools are not primarily responsible, they have assisted the process. Whatever else we may say of it, it has tended to the unification of the nation, and the nation in this case includes notably Scotland and Wales. For what was once considered rather a special feature of Welsh or Scottish life—the elevation of the poor boy to the professor's chair or the pulpit or the manager's office—becomes thereby almost as common in more conservative England.

But it would give a miserably one-sided picture of the national effort, if we limited our view to the effects of State action in elementary education, or indeed to State action at all. The greatest manifestation of public interest in education came after the elementary schools had long had

inspection, after they had been confined by the Revised Code. That Code, one may be sure, would have been impossible had there been an enlightened public opinion about education in 1862. For the main impulse in forming this opinion one must look elsewhere, perhaps nowhere better than to the agitation among women about the same time that Parliament was making primary education a public charge and obligation. It is extremely interesting to note that in the same year, 1871, in which the first great Education Act came into operation, the Women's Education Union was formed to provide education for 'Girls of all Classes above the Elementary' and from this sprang the Girls' Public Day School Company in 1872. In this movement it is impossible to record the names, though some have become household words like 'Miss Beale and Miss Buss', but for the corresponding work among the poor, Margaret Macmillan will survive, as Florence Nightingale has survived to be the heroine of another side of social and humanitarian advance. In the work of all of them there was human passion and entire devotion, coupled with the belief that the thing close at hand, done as well as possible, would have ultimate results lasting for all time. In their own day, as pioneers, the women's colleges at Cambridge and Oxford were opened, and it is through their spirit that the great mass of girls' schools to-day respond so readily to any appeal for a social ideal, and stand so firmly for a policy of world-peace, based on a League of Nations. For our argument here it is important to notice that this women's movement was free and spontaneous, carried out mainly by the women themselves, with the help of a minority of the other sex. They have their reward in the general rising of the educational ideal for the nation as a whole.

But it would be quite unfair to stop here, and leave the impression that the public schools and private schools

generally stand where they did. Any one who remembers his old school of fifty years ago, and revisits it to-day, can hardly recognize it at first glance. The traditional forms and ceremonies remain, and beneath them the old pride in continuity and the spirit of the place. But what goes on as the daily routine of education has been transformed. Everywhere he sees science laboratories and art rooms, with provision for gymnastics and the most scrupulous care of health. Classrooms are provided with modern maps and apparatus. The rooms are brighter and the boys are brighter with them. The old mechanical drill of learning by heart has been replaced—some may think too completely—by the giving of oral lessons. The books are far better, and he will notice a well-used school library, supplemented in many places by special libraries for each class. School games are far more general, and inter-House competitions of every kind. The modern school in short is a busy hive, and the staff are as much caught up by its activities as the scholars.

It is impossible for any one to take in the significance of all this and not to feel a profound confidence in the future of a generation which is enjoying it and showing so much zest in its enjoyment. Where then are we to look for the other side, the drawbacks and dangers of which we are all vaguely aware, and to which it is equally necessary to refer for the justice of our picture?

Can we honestly speak of an 'educated' democracy when the flood of poor, or even pernicious, literature is so great, and so small the fraction of the population which seeks in any way to develop its mind after leaving school? Can we feel that our school system has reached its goal, when taste is so low in ways of speech, in our treatment of the country or our enjoyment of it, when the herd-instinct is so rampant, and individual work in creative art or even the power of quiet thought so far to seek?

It will be clear that one has no wish to paint an unduly lurid picture, and that the fullest credit has been allowed to all the good the schools have done. Moreover, it would be clearly unjust to charge against the schools deficiencies in the mature life of scholars who have left them for the most part as soon as they have reached their teens. But one must face the facts, especially those facts directly covered by our title. If we are treating the 'Nation as One', it is essential to consider the general level, the gaps that exist between the knowledge and vitality of mind and taste in sections here and there, and the widening wastes beyond. Are they widening? That is the question for democracy, not only in England, but in a mechanized and 'rationalized' world.

To keep the nation one, without sacrificing the strength and graces of the individual or the stores of knowledge and beauty in the past—but rather extending them to larger circles—this must be, and is, the ideal of those who think of popular education in its deepest bearings. The State authorities may sympathize and help in various ways, but such a purpose cannot be formulated or carried out by any great organization, acting necessarily by broad and general rules. It must be an individual impulse, rooted in and fed by the spirit of the whole society to which the individual belongs. Hence, though we may, and probably shall, extend the age of compulsory schooling somewhat further, we should not by that means attain this higher object, which is independent of compulsion and must be attained, if at all, by free pursuit. The extra compulsion which is now called for seems most needed for practical or technical ends to make young beginners face more competently the needs of life in a scientifically organized world. Education in the wider sense they would gain in a sympathetic environment, prompted by right desires which must be implanted in themselves. When such are given, such

agencies as Public Libraries, classes of the Workers Educational Association, or the churches, or the World's Association for Adult Education, will find a growing field.

One comes back therefore to the schools, and asks if there are any obvious ways in which they might be better fitted to create or stimulate an impulse for education which may outlast the days of compulsion and examination and rest on a lifelong basis. And here one speaks with caution and respect, well knowing the careful scrutiny with which so many teachers and others look out for the best road to reach the very object now in view. But it may be of service merely to put together and emphasize a few truths which are commonplaces to a minority, disputed by others, and ignored or dismissed by another third. The bulkiest and most burning question is no doubt that of examinations. On this Chapter XI was written, and a Special Committee of Inquiry reported in 1932. Let us then put the examination question for the moment out of sight and consider the work of the schools itself, and how it might, with a free hand, be better framed to secure a permanent and progressive educational impulse, pervading society generally, and knitting the nation together in this spirit.

The first point to be observed is that no revolutionary change can be contemplated, or is by the nature of the case possible. It was argued—if indeed it needed argument—that the business of education is to put each new generation at the level which civilized mankind had reached at that time, so that they might make the next step forward from a firm base. That being so, the matter of instruction remains substantially as handed down to us and sifted by the common sense of our predecessors. There are the instruments of learning and communication between human beings (in language and mathematics), with the mass of knowledge covered by history and science in

all its branches, with an appreciation of values learnt or created, in art, morality, and other lines of human thought. These things are there, a heritage overwhelming in its variety and wealth, and the most urgent question is the spirit in which we approach it. It may be suggested that the first essential is to append to that sense of appreciation, the joy and pride that so much has been accomplished. The world on the whole is good, and man on the whole has laboured successfully to improve it. This old-fashioned religious notion remains, in spite of temporary pessimism, past or present, the natural habit of mind in young and healthy beings. If it is conservatism, then we must unhesitatingly claim that our first approach to the young mind in education should be conservative. But it is conservative only in that limited sense, for at once the educator must begin to sift and select among his material, to frame a course of action according to certain regulative ideas, gained partly from his knowledge of the psychology of the child, partly from his ideals for the future. He must; but in England this side of the necessary work is most reluctantly approached. We are above the average in our care and sympathy for young life. We are anxious and fairly skilful in meeting the practical necessities of education. We preserve with pride and zeal older and more venerable traditions of our schools and colleges than any other nation. But the philosophy, or most general ideas, about this and other matters of practical concern, attract us less than other people. A few suggestions therefore of this general kind may not be amiss, seeing the extreme complexity of the present facts and the need of inducing more order into them, and in the first place into our own ideals and purpose.

On what sides should we lay most stress, and why?

The first point would be the development of individual powers and taste. It was seen in Chapters I and II that

education must be in the last resort an individual thing. All the subsequent discussion, and a glance at the present mass-tendencies in society, give further point to this contention. Not a national-item, not even a world-item, but an individual, full of resource and responsive to the call of reason and of beauty, must be the educator's ideal. Its adequate achievement is beyond the scope of organized effort either in schools or examinations or state departments. They may even obstruct the growth, which must be independent, rooted in, and encouraged by a congenial social environment. Individuality and creative effort will therefore be first among the regulative ideas by which the educator will be guided in introducing into an old world the young who are to make the new. It means in simple practical terms, calling forth, wherever possible, the scholar's own powers of shaping, combining, reasoning from, the material before him. The Art room and the workshop are obvious examples; but the spirit is applicable in due degree to every part of his programme. It is familiar enough to teachers, who mostly find its application hampered by 'work for the examinations'. So far as this is so, it must be left for the solution of the question which is raised elsewhere. But were this a manual of teaching methods, it might be filled with illustrations of the way in which the creative spirit may be evoked with ease and intense satisfaction to the learners. One instance alone must suffice, that of the drama. In this year (1933) the centenary of the death of Wilberforce, nothing could be more vivid or stimulating than the dramatization of scenes in the long struggle for the emancipation of slaves. It has been done in various places, with words, scenes, dresses, all fabricated by the actors or actor-managers.

All this will be agreed, and may be even thought commonplace. The obvious objection is that, examinations or no examinations, the mass of work to be accomplished

could never be done on spontaneous and creative methods only. We need more order than could be gained from such occasional efforts. Another general point therefore comes into view, which has been already dealt with in particular examples in Chapter XIV. We may call it philosophically 'synthesis'; practically it is the common-sense rule of selection, and connecting the selected points on some good plan of natural co-ordination. It may be possible now to go a step or two beyond the particular examples already given, and find some more general meaning and application for the principle.

Scientists tell us that it is easiest to understand any science in its nascent state,¹ and every one knows the light which has been thrown on the evolution of species by embryology. In that case the synthetic, or co-ordinating, principle is evolution: history, that is, in its moving or dynamic aspect. Going back, we find not only the common root of things which have since become different, but also the cause which has made them diverge. It thus brings together into a common origin the multitude of forms which perplex us in the present, and also indicates the important points in their branching off which deserve our most careful study. Let us apply the same idea to history in its narrower or more usual sense of human evolution, and we gain a flood of light on the field of education, so far as it relates to knowledge, and a most powerful and quite natural instrument for grouping, explaining, and co-ordinating the facts. Take first the national aspect, as the scholars are English. They need to know the elements which have gone to build up their nation and its language. The two are closely knit, and consist mainly of Teutonic and Latin elements, with some others in varying degrees

¹ See *Centenary Addresses on James Clark Maxwell*. Cambridge University Press. Clark Maxwell's youth as narrated in Campbell's life is a fascinating and most instructive study in education.

in various parts of the country. The Latin element comes in linguistically with the Normans, who reunite the country to its European framework, and, in a later importation, represents the medieval culture common to the Catholic world. Here, in a short historic summary, we have at once light on the languages and civilization which it most concerns us to study, and on the main turning points in the earlier and nation-forming period. Coming later, we see how, at the break up of this Latin and Catholic unity in the sixteenth century, a still more universal language of science came in with the seventeenth, inducing a new point of view towards the world in general. Science thus finds its rightful place in general history, and indicates by its greater generality the new social purpose which it is the business of our own and succeeding generations to work out.

In thus co-ordinating the different parts of the accustomed school curriculum, history exhibits its great synthetic power. But it has another, perhaps even higher quality from the social point of view, when, as now, we are considering the education of the 'Nation as One'. A nation is history lived out in common by natural groups among mankind, and without this common history they could not exist. It does not follow of course that the history on which they live must be learnt from books or taught in schools. It arises in the first case by tradition and is handed down as a common possession. The tradition and the community are the essential features, but the high value placed on these traditions encouraged the use and treasuring of written records among those peoples who prized them most. The Jews are the most perfect example. With them the nation was built on a book, and in the history of that book one may study the creation of a national history, formed by the conscious remodelling from age to age of traditions which embodied the aspirations of the people and held

them together as one to the present day. Any nation which believes in itself and is held together by strong internal ties, will wish to do the same. Those who value this coherence, and are in a position to spread the knowledge and make it at the same time more correct and complete, will rank this duty among the highest which they may perform. Service may take an innumerable variety of forms: here is one of them, specially deserving of record when we are thinking of educational forces calculated to advance the nation on its path forward as one.

Service is the last, perhaps the greatest, of the general regulating ideas needed to bring order and added force to the mass of effort and new knowledge now growing around us. It is a necessary complement to those of individuality and creative action from which we started, and happily it finds a warm response among teachers who must serve to win their pupils, and among the young who, if rightly treated, have a strong natural inclination to follow and be of use. It needs no urging here, for it is at the root of all religion and is taught in every school chapel. But a word of expansion may bring the idea into closer connexion with the subject of this chapter. He also serves who spreads the light in his own mind and those of his contemporaries. There is a tendency, akin to the practicality of the national temper, to think of service, rather exclusively, as work to help others in the necessities of their lives; and this desire will always and rightly touch the deepest chords. But service towards the better sharing of spiritual things has an even wider bearing, though a less immediate appeal. Those things by which the nation's soul is fed, its history and hopes, its art and literature, the beauty of its country and its people, must also be shared if we are to grow as one. On these lines the 'humanities' in all sorts of schools find their best justification, and those who serve in spreading them are working towards the true end of man.

XVIII

THE NATION IN THE WORLD

AMONG the many perplexities which the new world situation has brought with it, none is more universal or baffling than that between the nation and all-nations, between one's duty to the smaller and nearer group which we know so much better and the larger whole with which we are coming now rapidly to understand that our lives are indissolubly, though less visibly, bound. This international question now dominates the political scene, and from this point of view will not be discussed in these pages. But we were led at the end of the last chapter to so strong an affirmation of the need of a national ideal in education that it might be misleading to leave the matter there. Names are bandied most quickly on matters where the thinking is not clear, or the issues not yet well defined; and one who believes firmly in a nation's duty to itself, may find himself dubbed a 'jingo' before he has time to turn the medal round. There is in fact no contradiction in this case. No one can do justice to the claims of others, or appreciate their contribution to the common store, unless he has some experience and consciousness of his own to compare with theirs. It is in that spirit that we would approach the larger issue, and consider it, quite briefly and simply, from the scholar's stand-point.

To the young child, whose mind is first opening to the movement and wonders of the world, the abstraction of the nation does not exist. All men and women are equally interesting, pleasing, or frightening, as they resemble, or not, those whom he has come to know and love in his home surroundings. That is the time when stories of all nations should be taught him, chosen only for their intrinsic interest, their power to stir the imagination and evoke

pictures of adventure, beauty, or goodwill. The hearer at that stage will not discriminate nationally between Joseph the Jew, Odysseus the Greek, Alfred the Englishman, or Don Rodrigo the Spaniard. All are heroes of good tales, and as such may lay the foundations for a broad humanity later on.

But gradually a change comes. We cannot date it exactly, as children and circumstances differ, nor does the exact point affect the case; but both common sense and the necessity of choice compel us to give special attention, and a larger proportion of time, to matters affecting our own life and country than those of any other, perhaps, for a time, larger than that given to all the rest. There is no unfair discrimination in this, still less any arrogance or hostility towards others. We are simply doing in respect of the homeland and its people what every civilized man is expected to do in respect of his own family and town or village. The want of it is a defect in many of the recent attempts to popularize a knowledge of world history. We need the world, but in the foreground we need our own nation in its world setting. The absence of this recalls the old argument for a reasonable self-love as an essential part of an altruistic system: how can a number of adjacent bodies diffuse heat among themselves, if each is cold at heart?

The simplest plan in teaching, when the time of discrimination comes, would seem to be to have two parallel streams of instruction going on, one devoted to the national story and the other to human history as a whole. Naturally they would as far as possible be brought together at the appropriate points, and the connexions emphasized. Every intelligent teacher will have his own way of doing it. But the plan, often pursued at the present time, of dealing with general world history in the earliest years of instruction, and then leaving it altogether till perhaps the latest years,

has the grave defects of teaching the most general things at the most immature age, and depriving English history of its due connexions at the time when it is being studied. But all these are questions of school method which it is impossible here to discuss in detail. Sufficient, if one can establish the double and indissolubly connected truths, that national history should be taught to all, and also world or general human history, the latter both as the setting for the former, and in its own, and ultimately greater, rights.

So far for history, in its narrower and accustomed sense. Similar arguments will occur at once when we turn to other matters such as the teaching of literature and geography. Each has its national and its human bearing. But it needs no special pleading to see that the English child will gain more from Shakespeare in his own tongue than Molière or Goethe in translation. The puzzle is a serious one, but it belongs rather to education of more mature years than we are now thinking of. Goethe, for instance, is probably the most commanding and comprehensive mind of the last century. One cannot be content with an education which leaves so great an influence unknown directly to at least 99 per cent. of the population. How is the difficulty to be met? By translations, by learning the language after more urgent tasks have been done, by lectures about Goethe and others like him? The question is one of many which will come nearer to solution when adult education has reached a further stage. For the average child it is clear that the bulk of his literature will be English, with the masterpieces of other nations studied in the small portions which may be possible for those learning the languages, and translations—more perhaps than we have been accustomed to use—for other works.

Geography has always been treated more as a world subject than history or literature. The reason is plain; it

is nearer to a natural science, and its general bearings are independent of language differences or the competing passions of men. In so far as the teaching of history becomes the teaching of civilization, it will absorb the human aspects of geography, and the two branches will become, as they should be, complementary. Geography, linked with geology, leads, on the one hand, to the basic evidence for the slow evolution of mankind as the crowning part of the earth process; and, on the other, exhibits the world's inhabitants coloured and conditioned by an infinite variety of material circumstance, but all linked together by the necessities of life, if not by blood relationship, in an actual community.

But the subject of this chapter demands some special consideration beyond what can arise from the teaching of the accustomed school subjects. The nation has been 'in the world' in recent years more intimately and anxiously than at any earlier period, and there is no prospect of this relation being relaxed. On the contrary, every moment brings fresh evidence of its permanence and increasing obligations. We need therefore some definite teaching about world-affairs in the schools, though the critics who would place the main responsibility for bad international relations on school teaching, or hope to attain world peace by changing it, tend to spoil a good case by exaggeration. No one would discourage such hopes or efforts; but one must look rather to the growth of quiet and reasonable habits of thought generally, than to special propaganda, as the safer cure. The new condition of the world in which the League of Nations plays a prominent part, in which international business absorbs more and more of statesmen's time, in which prices, unemployment, wages, and hours of labour are recognized as matters of general concern, is a great historical fact to be studied calmly and approached by different students

in a temper appropriate to their age. In its extreme complexity it is clearly matter for adult and expert minds. For the young it has its heroic element and its picturesque detail. For all, it is a part of the evolution of their own country and of mankind which cannot be omitted from the purview of the school or of educated common knowledge any more than the origin of Parliament or of the Judges on Assize.

The schools on the whole have acknowledged this, and made a genuine effort to meet the case; some with enthusiasm and a variety of ingenious devices, others more perfunctorily as part of the ordinary history lessons, others by having occasional lectures or a sermon in the chapel. It is the busiest and perhaps most fruitful side of the activities of the League of Nations Union to assist in this work, and, while they have been doing it, several professorships of International Affairs have been instituted, in Oxford, London, Wales for instance, which are spreading knowledge of the same kind in more advanced circles and with no special cause, except the spread of knowledge, to propagate. Highest and most comprehensive of all such foundations stands the Royal Institute of International Affairs in London, English in its origin, imperial in its adoption, and impartial in its outlook.

The nation has therefore, in the War and post-War years, been active in qualifying for its place in the world, and other countries have treated one or other of these new experiments as worthy of imitation. It may be expected that they will grow, as they prove useful, and as the clear tendency of the age is towards a closer internationalism. For this very reason it is important to hold fast and develop the true ideal of a united nation, which may co-operate with others in necessary and useful work. Without this, internationalism becomes cosmopolitan, and a new sect is formed of those who would act and rule the world without

the support of one of the world's strongest motive forces, and would only reach the desert by a short cut.

A few examples may be added of means by which the new ideas we need may be integrated into the existing system.

In many schools a branch of the League of Nations Union has been formed, and the practice would be more general and more useful if it were seen that such work might be viewed scientifically as a method of extending and consolidating knowledge. An international study-group would play an invaluable part among older scholars, if used to widen their horizon, correct and supplement the daily paper, and bring their foreign history up to date. It would not exclude the holding, or the expression, of strong views, but would enlighten them. Every method that can be used to bring contemporary foreign affairs into their due relation with our own is an intellectual effort towards greater synthesis in living and thinking, the quality most wanted just now both in our minds and in the world at large. We act as a conciliatory force, by habit and common sense and in our national interests; it would strengthen us greatly in this most necessary function, which seems to have fallen into our hands rather by chance, if it rested on a more adequate foundation of theory and knowledge. Signs are not wanting of a move in that direction, but how strange it seems that in all places of learning we still treat ancient and modern history as practically separate subjects, and have no chairs of sociology or the history of science at the old universities!

The last-named subject is one specially fitted to convey the idea of the unity and continuity of history to those who are immersed in its most multifarious and rapidly developing aspect. Special courses in the subject were recommended by a committee of the British Association a few years since, and would follow naturally on the first intro-

duction to outlines of our present knowledge. Nothing is more congenial to the spirit of an international study-group, as suggested above, than to trace the way in which science has been built up by workers from all nations, unconscious, *qua* men of science, of any national differences.

There is another side of educational activity, very popular at the moment and always attractive and useful to the young. Science, in the shape of the cinema, has made inroads on the legitimate drama, and professional actors are eclipsed by the wealth and fame of the film-star. Meanwhile, amateur acting—the primitive and genuine form of the art—has made compensating strides and is especially popular in schools and social clubs. The new Spanish Government has commissioned troupes of student-actors to go round the villages and educate the people by plays of national life. The same method is capable of easy extension to the international field and is already being tried in England. There is an International Students' Drama League which has brought plays from France and Germany, and English players to Germany and France, and might with encouragement achieve the foundation of permanent centres in the large towns where such things could find and create appreciative audiences. The social intercourse which accompanies such visits is not the least of the advantages.

It is one of the paradoxes of the age, perhaps the greatest paradox in history, that a world, which is groaning under tariffs and mutual suspicions, the locking up of bank reserves and the letting loose of bombing aeroplanes, is also a world where conferences and international associations and Youth Camps and wireless messages and civil aviation grow and multiply. Most of the latter indeed are not only more in quantity but new in kind. They may most properly be regarded as nature's remedy and compensation for the evils of the War. That the remedial

state will conquer the disease is the firm hope of all well-balanced minds, and the schools will play a large part in securing it. They have done much already. They would do more if some reform, above all some relaxation, of the examination system in the higher ranges of education allowed more freedom in the planning of the work. But there are many lines of advance and hope on all of them. Looking at other nations and coming back to our own, one feels most hope from the abundant vitality of the English youth, his enjoyment of life, his readiness to co-operate. For his sake, and the steadying of England's place in the world, one must urge a stronger intellectual interest, both in school and in private.

The mind grows best by linking one subject with another and striving for harmony; and it must be a world vision that can satisfy the aspiration to see things whole. In such a vision, if the world is healthy, nations with an ideal find their place and their reconciliation.

APPENDIX
AN OUTLINE OF THE DEVELOPMENT OF
TECHNICAL EDUCATION IN ENGLAND

By A. N. MARVIN

THE subject of this appendix is the training of the young worker for industry and commerce and the development of this training in our educational system. Such education is said to be technical, a term derived from the Greek word *Τέχνη* meaning art, science, or craft. Though applicable in its wider sense to any training preliminary to a profession or trade, the term is generally applied to the instruction for rank-and-file positions in industry and commerce or for their minor executive offices. The scope of technical education has been well defined by the Council of State of France: 'the education which has for its aim the practice of the useful arts and the application of science and artistic knowledge to the different branches of agriculture, industry, and commerce.' It would appear that whatever may be the industrial future of this country, its prosperity must largely depend on the training of its young workers.

As the over-development of one part of the body may upset the working balance between the use of its various parts and throw them all out of gear, so did the application of mechanical power to manufacture which brought about the Industrial Revolution in England upset the social life of the country, and not least the relation of the workman to his master. The old system, by which the young worker was legally apprenticed to his employer and was taught the details of his trade during working hours, gave way under the new conditions of production. There were important reasons for this: the difficulties of organizing training for apprentices were very great in the new system of large-scale factory production; the specialization in many industries subdivided production into small individual tasks and made it difficult for the worker to become acquainted with an industry as a whole; and the speed of the new machine age left no room in the workshop for the pupil-

workman. Employers in the cotton industry became unwilling to enter into apprenticeship contracts when legislation sought to protect apprentices but not unapprenticed children.

The evils to which the workers were subjected under the new industrial system were in course of time more than balanced by the reforms which these evils called forth; as, later, the reorganization of the industrial machine, and even its distortion, to meet the demands of the Great War revealed lines of advance. The struggle for better conditions for young workers during the last century was a necessary preliminary to provision for their educational needs. It was aggravated not only by fears of the factory owners for their profits, but by the fact that reformers attacked the evils of the new conditions rather than others that were more deep rooted. Furthermore, the prevailing philosophy, at least from 1830 to 1870, was one of individualism and free competition, and the organization of the factories such that a restriction of child-labour would have restricted automatically the work of the adult. The solution of the problem was shown by Robert Owen and a minority of employers, at an early stage in the controversy, to lie in expert management and an improvement in technique, and it was demonstrated that output can often be increased by a shortening of working hours; and more leisure implied the possibility of education.

Locke had identified man's 'natural rights' with the enjoyment of life, liberty, and property. Jeremy Bentham in enlarging this conception by his formula, 'the greatest happiness of the greatest number', brought out the importance of education in increasing the possibilities of individual development. The influence of this school of thought and of the new social disorder became apparent in the attention of the Government to education from the middle of the last century.

Three agencies have combined to provide technical instruction for the young worker: a minority of employers, the State, and voluntary associations. The leading characteristic of the English system of technical education, the dependence on evening-class work, to supplement practical experience gained in the course of employment, springs from the conditions of a

century ago. The difficulties encountered by the Mechanics' Institutes early made evident the need to base technical instruction on some broader training of the mind, and Working Men's Colleges which aimed at giving a general education grew up while the Elementary Education Acts of 1870 and later were still to come.

The Science and Art Department, incorporated in 1864 under the Board of Trade, was in effect an outcome of the Exhibition of 1851 and the interest it aroused in our industrial position; although the Government had earlier formed a School of Design (1836) and the departments of Practical Art and Science. It was through these organizations that grants were first made for education other than elementary, and in 1859 these took the form of payment on results to classes in science and art throughout the country.

No adequate alternative to apprenticeship as a means of making the worker efficient had yet been found, and the Society of Arts took the initiative in an attempt to meet this need by holding technological examinations.

Workers who had received their training through apprenticeship paid for it largely by their labour. They were not able to pay for the education that they needed when part of this had to be gained outside the workshop. Forces that had worked for balance in our national life before the Industrial Revolution proved adaptable to the new conditions. Such an adaptation was the formation of the City and Guilds of London Institute by the Corporation and Livery Companies, one of whose historic functions had been the control of apprenticeship. This Institute took over the holding of technological examinations from the Society of Arts and aided and directed the growth of technical education by a system of payment on results until the Local Authorities had power to raise money for this purpose. Another example was the devotion of the surplus funds of the Parochial Charities of London, where the resident population had decreased, to the educational needs of poorer workers. The special Charity Commissioners of 1884 were struck by the success of the Regent Street Polytechnic, organized by Mr. Quintin Hogg on the lines of similar institutions in France and

Germany with recreative interests as well as instruction in technical and artistic subjects, and they offered permanent endowment to a system of such institutions in London. This action and the increasing interest, particularly among employers, led to the growth of London institutes.

In 1879 the Government had given permission to Local Authorities to levy a rate in aid of technical and manual instruction.

Where, as in England, practical experience is gained in the employer's workshop, children best suited to become rank-and-file workers, and for whom it is a financial necessity to begin earning at an early age, may supplement the bare modicum of an education with post-employment instruction. On the other hand, the more able children and those of better-to-do parents intended for industry and commerce look for a longer pre-employment training leading to positions of higher standing. From the early days of national elementary education attempts have been made to meet the needs of this second class and for a long time unsuccessfully.

Among the causes that have worked against 'further' full-time education in technical subjects in spite of a manifest need for it are firstly, that the elementary school system was considered to be provided for the benefit of the poorest classes. This principle was exemplified by the Cockerton judgement of 1895 which made it illegal to aid higher-grade schools from the rates. Secondly, that the grants paid by the Science and Art Department, on which these courses for long depended, restricted the scope of their work and the examinations of this Department were more suited to part-time students. Thirdly, that when the development of Council Secondary Schools came it was considered as an alternative to 'further' education of a technical nature. Local interest proved insufficiently strong to maintain the type of Secondary School designed to aid industry and the development proved more useful as a preparation for commerce. A valuable advance had, however, been made by the end of the last century in the teaching of practical subjects in Elementary Schools.

A powerful incentive to the development of technical educa-

tion was the ever-increasing competition of foreign producers which by the beginning of this century had shaken the former stability of our trade.

Educationists drew unfavourable comparisons between the training given to young workers in this country and in certain countries abroad, resulting in superiority of some foreign products in cheapness and artistic merit.¹

In England the pre-employment training for industry of pupils leaving Elementary Schools grew out of the part-time system by way of Trade Schools aided by grants as Day-Continuation Classes. These prepared their pupils for a particular group of trades and paved the way for the Junior Technical Schools with wider aims, recognized by the Board of Education in 1913 and aided at an advanced rate. In the year before the Great War we thus attained a type of school giving a technical training of secondary standard and with a leaving age in accordance with the requirements of industry.

Under the pressure of war, industries organized themselves on a national basis in employers' and workers' associations. These have interested themselves in education and are bodies capable of making their needs clear to education authorities. The quickened pulse of industry has hastened the growth of research associations in particular industries, and the consequent increase in trade knowledge has called for an increase in technical education. The movement towards national organization in industries has made possible the Board of Education's system of National Certificates which have given an incentive in technical work to the student and to the school.

During the war the work of juveniles and women with very little training was used to replace that of trained men. When reconstruction took place some women and many young people were thrown out of employment, and the acute problem of juvenile unemployment was an added reason for the reorganization and extension of elementary education.

That the Industrial Revolution came about in England before our educational system was much developed was, as we

¹ *Brass-workers of Berlin and Birmingham*, published by Board of Education, 1905.

have seen, an important factor in deciding the character of technical training. Though this has resulted in unfavourable conditions for young workers over a long period of time, it is enabling us to complete the system at a time when national life has accommodated itself to the effects of the Revolution. It is unfortunate, however, that the education given to the adolescent should be in process of formation under the influence of the Hadow Report, at a time when trade is crippled by unprecedented depression.

We may now describe the present position of technical education in England and compare it with that in some other countries.

Agriculture must be dealt with first both because it is a basic industry and because technical education is simpler here than in industry and commerce. Its peculiar feature is that higher education for agriculture is under the Ministry of Agriculture and Fisheries.

In the Elementary Schools there is little of agricultural bias beyond the theory and practice of gardening. In some parts of the country importance is now attached to the cultivation of flowers and the lay-out of a garden in addition to the growing of vegetables, and the study of rural science is made more effective through better science equipment. The difficulty of collecting senior and advanced pupils into separate schools in rural areas has prevented a more rapid advance in the teaching of rural subjects.

An introduction to some of the practical problems of farming is at present given by the National Federation of Young Farmers' Clubs, inspired by American example. It is a splendid model of local and national organization giving a wide training in the care of stock and crops, agricultural crafts, and business methods to those between the ages of ten and twenty-one. County Councils aided by grants employ County Organizers and maintain Farm Institutes. The cost of lodgings has generally to be added to the fees charged at Farm Institutes which can be entered at 16 years of age, and the number of scholarships available is small. It is also difficult to allow the worker time off from the constant cares of the farm. Part-time peripatetic

courses, however, have proved a great success, being attended by 12,000 students in England and Wales in 1928 compared with the 800 or 900 which the Farm Institutes could accommodate.

The need for vocational training is increased by the fuller use of science and by mechanization. Although by these means workers are at present being put out of employment, the persistent efforts of the Government give ground for hope that agriculture will revive, and in so doing provide work for a great number of young people.

Industry and commerce have a more fully developed system of technical education.

By 1913 there were institutions giving full-time technical education to senior pupils from Elementary Schools, but after the war the urgent need for a longer and more advanced school course was met by an extension of the elementary system with little vocational bias. The character of this new development of the Elementary School is still undecided. On the one hand, in the system of education for the adolescent, are the Secondary Schools that can now admit twice the number of pupils that they could in 1910. Attendance at a Secondary School is often thought to confer culture not obtainable elsewhere, and the first School Certificate has been fixed upon by employers as a qualification of the first importance, although it has come to denote a preparation for the university to which only the very few can go and is not at present a suitable test of practical ability. On the other hand are the Junior Technical Schools with which can be classed the Junior Commercial Schools. They have proved that they can give a practical training which is in fact preparatory to a trade or profession and also continue the general education of their pupils. At present the reorganized Elementary Schools tend to be drawn into the orbit of the Secondary Schools and give an education more useful as a preparation for commerce than for industry.

In an age when the application of Science is the predominant force the study of Science and practical aptitude cannot long be considered 'uneducational'. There are already schemes on foot to provide for a larger number of senior pupils in Elementary Schools on the lines of the American Junior High School.

In these High Schools industrial, commercial, and artistic options can be studied the more beneficially from association with one another and the school buildings give facilities for evening students. It should be possible for pupils to be transferred from the High School to the Secondary School, or vice versa, when advisable.

The number of Trade Schools which give training for particular groups of trades remains small in this country. The French view that apprenticeship can be completed in a pre-employment school is opposed to our general principle of dividing technical training between school and employment.

Our ideal in technical education has been the illustration in the technical class of the principles underlying the pupil's employment with such additional instruction as he may need to form a comprehensive idea of his subject. The farthest development on these lines is known as the 'sandwich' system, in which alternate periods of weeks or months are spent at school and in the works. This makes the school almost a part of the industry or trade. It implies the study of intricate principles and is found, as we might expect, in connexion with the engineering industry, which has for long attached great importance to technical education. Short courses in privately run commercial schools and courses of six months in Farm Institutes differ from this, since they aim at giving a complete course in a short period.

Next in order come the Day-Continuation Schools and the part-time Day Classes. Their arrangement is particularly difficult for smaller firms since the granting of time off to young workers for several half-days a week makes works organization more complicated. The privilege of attending day classes is therefore largely confined to apprentices, and the expense in wages and in fees, when it falls on employers, ensures their interest and co-operation in the work. The attempt of the 1918 Education Act to make Day-Continuation Schools compulsory failed for financial reasons. It would have secured this close contact of employers with education authorities and have kept adolescents under educational influences. In France a declining birth-rate and the consequent need to raise the efficiency

of a smaller number of workers caused a similar law to be enforced. The Loi Astier compelling employers with some exceptions to release their young workers in the daytime could only be put into operation by levying a 'tax d'apprentissage' from the firms.

The engineering industry in England has come to regard day classes favourably as a result of long experience; on the other hand, the printing trade has been rapidly converted to this system, and now nearly half the total number of students in London and a quarter of those in England and Wales, are allowed time off to attend day classes. The building industry is a leading example of an increasing number of trades which are becoming aware of the advantages of part-time day training for their young workers, but make attendance at evening classes a condition of the enjoyment of this privilege. The majority of those attending full-time day courses for students over seventeen in Technical Colleges have recently left Secondary Schools; the minority, only, are young workers released from employment.

Commerce does not afford many instances of part-time day classes, but two may be given. Day classes are held for the instruction of those buying and selling some commodities, for example in the London meat-trade, and works-schools are run for the benefit of young employes by philanthropic firms, for example that of Messrs. Cadbury, in which the education is a general one with a commercial bias.

The great mass of technical education for commerce is deficient in organization and has not progressed as rapidly as training for industry, although kindred services, among them banking, insurance, transport, and auditing, have organized themselves and decided on the qualifications necessary for their recruits.

Evening schools are still the usual means of occupational training. Work in the evening in addition to normal employment is an unfair tax on the strength and happiness of most young people. Many who attend these classes on leaving the Elementary School fall out after one year, some because fees are often first charged or are raised for pupils in their second

year. When our financial position enables us to make part-time Day-Continuation Schools compulsory a great weakness in our educational system will have been removed. Other countries in Western Europe and America have a far smaller number of students in evening classes than we have.

Only a quarter of the pupils leaving Elementary Schools continue their education in the Junior Evening Institutes or the Continuation Schools. The cause of this is to be sought not only in shortcomings of our educational system but in the commonly accepted idea that the subdivision of labour has decreased the need for technical training. The intelligent workman, however, should clearly understand as much of his trade as possible, and not only the small part of it on which he is engaged, and for this wider knowledge he relies on the school. The changing needs of industry make it necessary for the worker to have had as wide a training as possible.

The study of foreign languages and countries, of vital importance to our trade representatives overseas, is a separate problem in technical education. A really efficient study of the languages and requirements of other countries should benefit from some practical experience in those countries. A number of scholarships have been given to meet this need, chiefly by the northern industrial towns and the London Chamber of Commerce. Since 1932 Essex has had reciprocal arrangements with the University of Lille, which has held summer courses for foreign students for some years past. Six scholarships were given last year to pupils from Secondary Schools with credits in French in the School Certificate, to enable them to spend fourteen days at Lille, while many attended at their own expense. The Essex Authority provided a similar course at Earls Colne School with special facilities for commercial students, including visits to factories, newspaper offices, telephone exchanges, and the Port of London. The numbers of applications from Essex pupils and the keen interest of Local Authorities who were circularized show how much such a possibility is appreciated.

The very rapid developments in education and in industry have now reached a point where the closest co-operation between

them is essential. At present only a small proportion of firms in England and Wales give any encouragement to attendance at technical classes, although these classes exist to help them and would greatly benefit from their advice. Some employers, however, consider the work done in school of sufficient importance to influence the promotion of their young workers.

Industries tend to be localized and the needs of technical students are to a large extent determined by the industries of the neighbourhood. Local Authorities can maintain personal contact with the firms in their areas and endeavour to meet their needs. The Board of Education is doing work of great importance by making a survey of technical training in England and Wales and encouraging regional co-operation between Local Authorities. Economy and increased efficiency can be secured by the co-operation of neighbouring Local Authorities. Particularly is this so when an industry is localized, but not within the area of a single authority. The form that this joint action will take is necessarily settled by local circumstances and needs, but we can distinguish two types of regional co-operation. The first concerns itself with a single trade and is exemplified by the textile industry, which is carried on in a particular locality and has bodies interested in securing its educational needs. The second aims at collaboration over the whole field of technical education and has been attempted in Yorkshire as a result of a survey of the county by the Board of Education. London, with its wealth of Technical Institutes, has been able to draw surrounding authorities into a simple unified scheme: representatives of the Authorities attend a meeting where new proposals are discussed.

One or two suggestions that have been made for the further development of technical training may be mentioned.

Of newer ideas the use of industrial psychology is having important developments and may increase the effectiveness of technical education.

Very valuable work could be done if the City and Guilds of London Institute, backed by the prestige of the City Companies, concentrated the efforts of employers and again gave a lead in technical training.

The introduction of evening classes with a special social and recreative interest has been considered as a means of keeping a large number of pupils leaving Elementary Schools in touch with education. Classes of this kind will be very valuable even when it is possible to put into force provisions similar to those of the Fisher Act for compulsory continuation classes up to the age of eighteen with the alternative of full-time education until sixteen.

The application of the 'sandwich' system to agriculture—workers going to farm-schools in the slack season after harvest and at other suitable times—deserves further consideration.

The classes now being organized for the benefit of the unemployed may well prove fertile in ideas for technical, as well as for adult, education.

LIST OF DATES

- 1833 £20,000 granted towards elementary school buildings.
- 1846 Minute of Council giving increased grant towards pupil-teachers and both pensions and salaries for qualified teachers. Matthew Arnold's Golden Age as school-inspector.
- 1850 First Royal Commission on Universities, increases professoriate and improves qualification for fellows.
- 1862 Revised Code for Elementary Schools (following Newcastle Commission); imposes annual individual examination.
- 1869 Endowed Schools Act, setting up commissions to frame new schemes.
Girton first founded at Hitchin. Oxford and Cambridge Colleges for women follow.
- 1870 The Elementary School Act, setting up School Boards.
- 1871 Women's Education Union.
- 1876 Schools attendance made compulsory.
- 1877 Second Royal Commission on Oxford and Cambridge.
- 1880 A Charter for a University embracing Manchester, Liverpool, and Leeds.
City of London Guilds open College at South Kensington.
- 1889 Technical Instruction Act enables local councils to spend the 'Whisky Money' for scientific and technical education.
- 1894 Secondary Education Commission.
- 1899 Board of Education Act, concentrates educational work in one Office under a Minister.
- 1902 Balfour Act creates local authorities with general educational powers.
- 1918 Fisher Act proposes to extend the age of compulsion.

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